MITSUBISHI

VIDEO CASSETTE RECORDER
INSTALLATION AND OPERATION MANUAL

MODEL

HS-M1000 (E)

ENGLISH

SVENSKA

DANSK

CASTELLANO

PORTUGUES

S-VHS 625 VHS PAL

THIS VIDEO CASSETTE RECORDER IS BASED ON THE S-VHS AND VHS FORMAT. ONLY VIDEO CASSETTE TAPES MARKED S-VHS OR VHS MAY BE USED WITH THIS MODEL.

THIS INSTRUCTION MANUAL IS IMPORTANT TO YOU. PLEASE READ IT BEFORE USING YOUR VIDEO CASSETTE RECORDER.

ENGLISH

VIDEO CASSETTE RECORDER
INSTALLATION AND OPERATION MANUAL

CONTENTS

ENGLISH

Page

BEFORE USING YOUR VCR 2
CONTROLS AND COMPONENTS 3, 4
USING THE REMOTE CONTROL UNIT 5, 6

PREPARATIONS

CONNECTING THE AERIAL CABLES 7, 8
SETTING THE VIDEO CHANNEL 9
MULTILANGUAGE DISPLAY 9
CHANNEL PRESETTING 10, 11, 12
SETTING THE PRESENT TIME 13, 14

BASIC OPERATIONS

LOADING AND UNLOADING THE VIDEO CASSETTE 15
S-VHS RECORDING SYSTEM 15
RECORDING TV PROGRAMMES 16, 17, 18
PLAYBACK 19, 20
SPECIAL PLAYBACK FACILITIES 21, 22
USING THE ONE TOUCH TIMER RECORDING 23, 24

APPLICATIONS

HOW TO PROGRAMME FOR RECORDING 25, 26, 27, 28
ELAPSED TIME COUNTER 29, 30
INDEX SEARCH 31
PLAYBACK USING INDEX SIGNALS 32
ON-SCREEN OPERATION DATA 33, 34
RECORDING AND PLAYBACK WITH NICAM PROGRAMME 35
FOR USE AS A Hi-Fi AUDIO RECORDER 36
WIDE-SCREEN VIEWING AND RECORDING 37
DUBBING 38, 39
AUDIO DUBBING 40
INSERT EDITING 41

BEFORE CALLING THE SERVICEMAN

TROUBLESHOOTING 42

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BEFORE USING YOUR VCR

THE FOLLOWING PREPARATIONS ARE NECESSARY PRIOR TO USING YOUR NEW VCR. IF YOU HAVE ALREADY CONSULTED YOUR DEALER, THIS MAY NOT BE NECESSARY.
IF YOU INTEND TO COMPLETE THESE PREPARATIONS, REFER TO THE FOLLOWING.

- CONNECTING THE TV AND VCR AERIAL CABLES ..... PAGES 7 AND 8
- SETTING THE VIDEO CHANNEL ..... PAGE 9
- CHANGING THE VCR CHANNEL PRESETTING ..... PAGES 10, 11 AND12

CAUTION AND CARE

BE CAREFUL OF CONDENSATION

WHEN THE VCR IS TO BE USED FOR THE FIRST TIME AFTER PURCHASE, OR IS TO BE BROUGHT SUDDENLY FROM A COLD PLACE TO A WARM ONE, OR THE ROOM IS TO BE WARMED QUICKLY, CONNECT THE MAINS LEAD, TURN ON THE VCR POWER. DO NOT INSERT A CASSETTE AND KEEP FROM OPERATION FOR ABOUT 2 HOURS.

When the ambient temperature changes drastically, such as warming the room quickly, or in high humidity, high condensation occurs inside the VCR,which if used causes the tape to stick inside the VCR and may cause damage to the tape or VCR.
In order to prevent this damage, the VCR is equipped with a heater. With the power switch turned ON and the mains lead connected, the heater will be activated and dry up any trace of moisture occurring inside.

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HEAVY OBJECTS SHOULD NEVER BE PLACED ON THE VCR (E.G.,TV)

Do not place heavy objects on top of the VCR as they may dent the cabinet.

NEVER TOUCH OR INSERT ANY OBJECT INSIDE THE VCR

Touching the inside of the cabinet or inserting foreign objects of any kind not only creates a safety hazard but can also cause extensive damage.

CARE OF THE MAINS LEAD

A damaged mains lead is a potential fire or shock hazard.
When unplugging, hold by the plug (not the Lead) and pull out carefully.

UNPLUG THE MAINS LEAD AND DISCONNECT THE AERIAL DURING LONG ABSENCE

The VCR is still connected to AC mains voltage even if the VCR POWER is turned OFF.
When leaving home for a long period, always turn OFF the VCR POWER, unplug the Mains Lead and disconnect the aerial.

MAINTAIN GOOD VENTILATION

Do not obstruct the many ventilation holes on the VCR. For maximum ventilation, place the unit on a hard level surface only, and ensure it is not covered during use. Heavy objects should never be placed on the VCR.

WHEN NOT IN USE

When you finish operating the VCR always unload the cassette and turn OFF the VCR POWER.

CABINET CARE

Never use petroleum-based cleaners. Clean with a soft cloth moistened with soap and water and wipe dry.

PVC cables or leads should not be left in contact with the cabinet surface for long periods.

INSTALLATION LOCATION

For excellent performance and lasting reliability install in a location that is:-

1. Well ventilated, out of direct sunlight and away from direct heat.
2. A solid vibration-free surface.
3. Free from high humidity, excessive dust and away from magnetic fields.

NOTE:

- Never move the VCR without first removing the tape.

CARE OF THE VIDEO CASSETTE TAPE

- Avoid violent vibration or shock.
- Do not place near a strong magnetic field (e.g., a motor, transformer or magnet).
- Never place or store in direct sunlight.
- Avoid dusty places.
- Place the cassette in its case and store vertically.
- Never store the tape in high humidity.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION: UNAUTHORIZED RECORDING OF TV PROGRAMMES OR OTHER MATERIALS MAY INFRINGE THE RIGHT OF COPY-RIGHT OWNERS AND BE CONTRARY TO COPYRIGHT LAWS.

THIS UNIT IS PRODUCED TO COMPLY WITH DIRECTIVE 76/889/EEC, 82/499/EEC AND 87/308/EEC,CISPR PUB. 13 AND PUB. 14 AND STANDARD IEC 65.

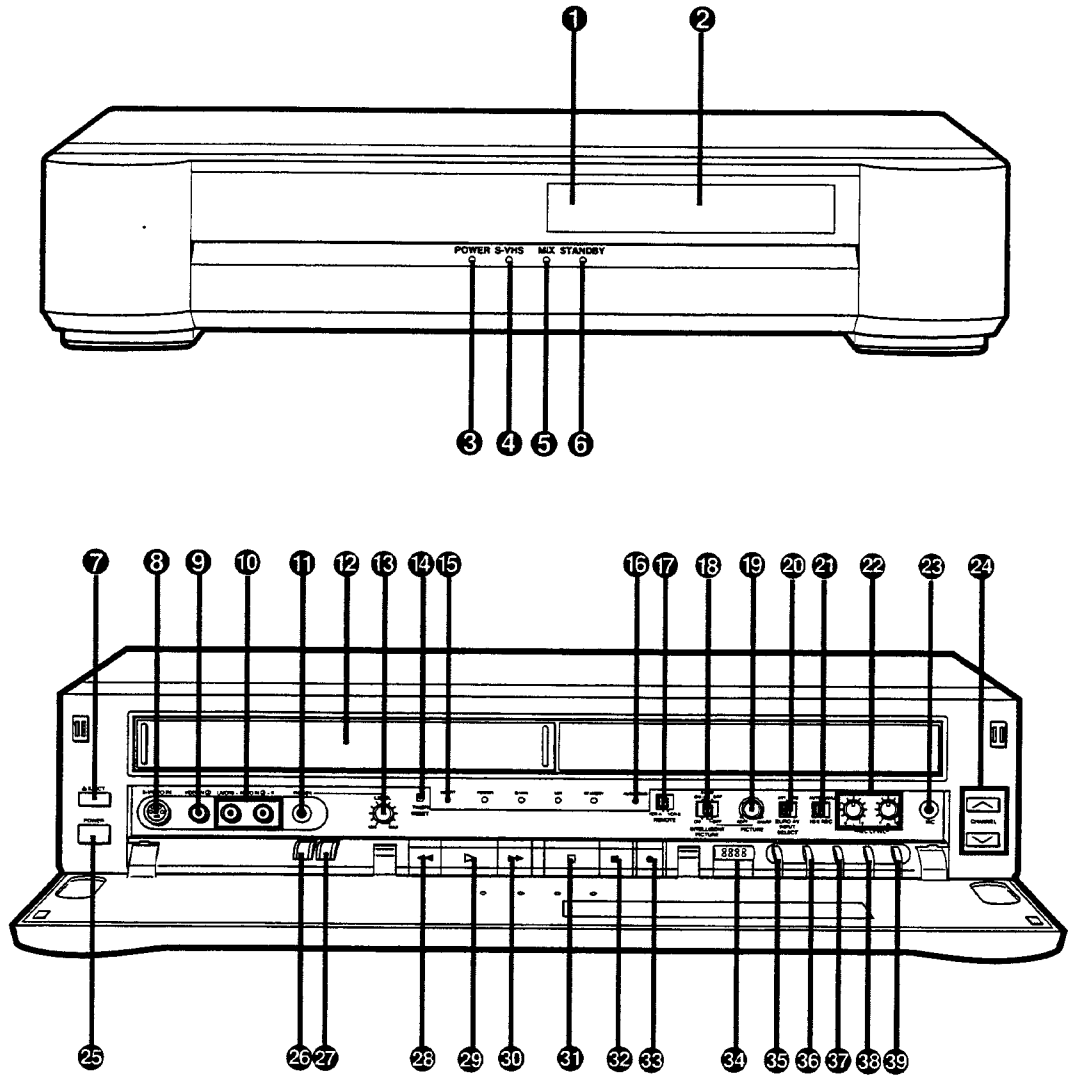
ACCESSORIES

WIRELESS REMOTE CONTROL, BATTERIES, COAXIAL CABLE, AUDIO CABLE, S-VIDEO CABLE

Design and specifications are subject to change without notice.

CONTROLS AND COMPONENTS

Front view

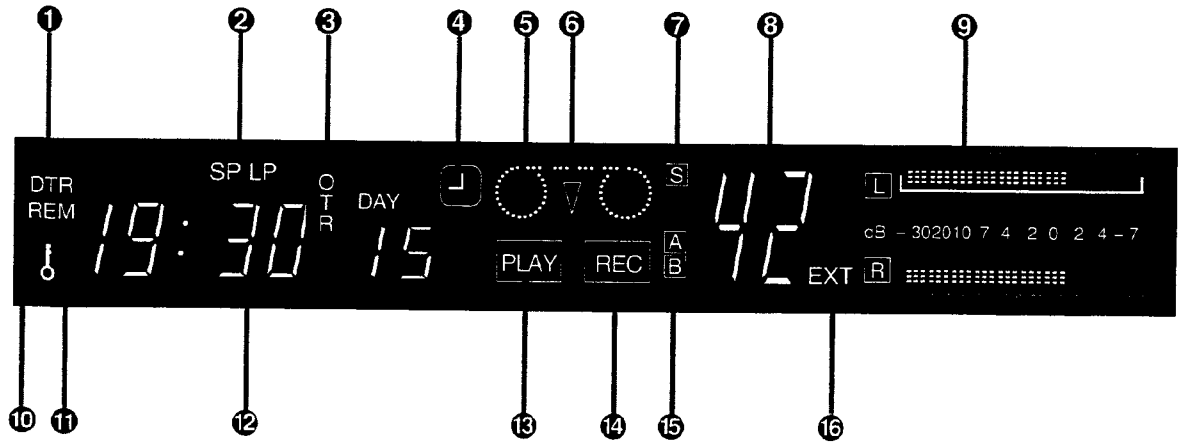


ENGLISH

- ❶ Remote control sensor
- ❷ Fluorescent display
- ❸ POWER indicator
- ❹ S-VHS indicator
- ❺ MIX indicator
- ❻ STANDBY indicator
- ❼ EJECT button
- ❽ S-VIDEO IN socket
- ❾ VIDEO IN ② socket
- ❿ AUDIO IN ② sockets
- ⓫ PHONES jack
- ⓬ Cassette loading slot
- ⓭ PHONES LEVEL control
- ⓮ TIMER RESET button
- ⓯ INSERT indicator
- ⓰ AUDIO DUB indicator
- ⓱ REMOTE switch
- ⓲ S-VHS/INTELLIGENT PICTURE switch
- ⓳ PICTURE control
- ⓴ EURO AV INPUT SELECT switch
- ㉑ 16:9 REC switch
- ㉒ REC LEVEL controls
- ㉓ MIC jack
- ㉔ CHANNEL buttons
- ㉕ POWER button
- ㉖ INSERT button
- ㉗ AUDIO DUB button
- ㉘ REW button
- ㉙ PLAY button
- ㉚ FF button
- ㉛ STOP button
- ㉜ PAUSE button
- ㉝ REC button
- ㉞ O.K.PROG. button
- ㉟ OTR START TIME button
- ㊱ OTR REC TIME button
- ㊲ MIX button
- ㊳ TAPE SPEED button
- ㊴ DATA ON SCREEN button

- The STANDBY indicator will be illuminated when the Mains Lead is connected to AC wall outlet, and will be turned off when the VCR power ON.

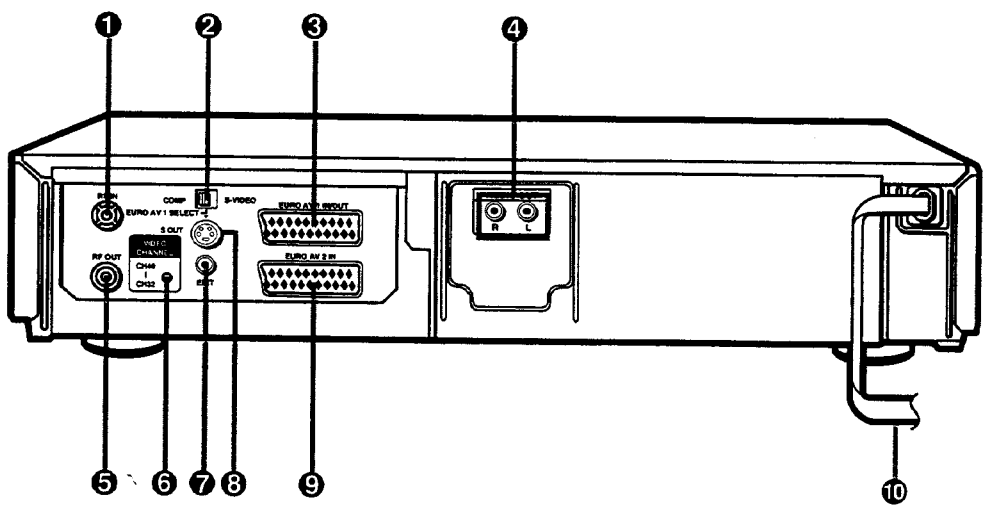
Fluorescent display



❶ DTR (digital tracking) indicator
❷ Tape speed indicator
❸ OTR (one touch recording) indicator
❹ Programmed recording indicator
❺ Cassette status indicator
❻ Index indicator
❼ Stereo indicator
❽ Channel display
❾ Peak level meter
Time gauge
❿ Lock indicator
⓫ REM (remaining time) indicator
⓬ Day and present time display
Counter display
Remaining time display
⓭ PLAY indicator
⓮ REC indicator
⓯ A and B (dual) indicators
⓰ EXT (external input) indicator

ENGLISH

Rear view



❶ RF IN terminal
❷ EURO AV 1 SELECT switch
❸ EURO AV 1 IN/OUT socket
❹ AUDIO OUT sockets
❺ RF OUT socket
❻ VIDEO CHANNEL setting screw
❼ EDIT socket
❽ S-VIDEO OUT socket
❾ EURO AV 2 IN socket
❿ Mains Lead

USING THE REMOTE CONTROL UNIT

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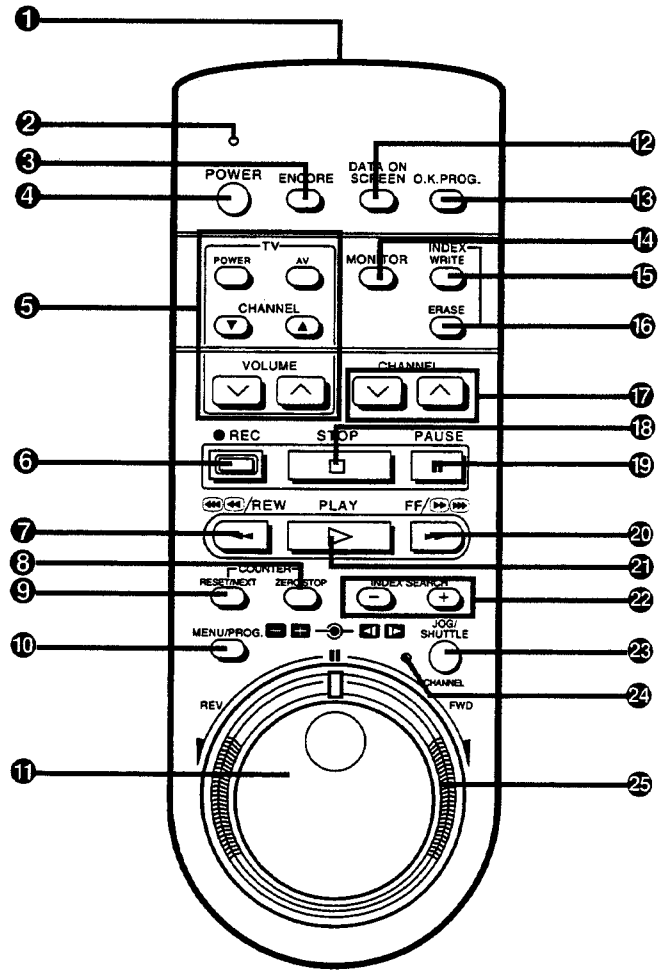
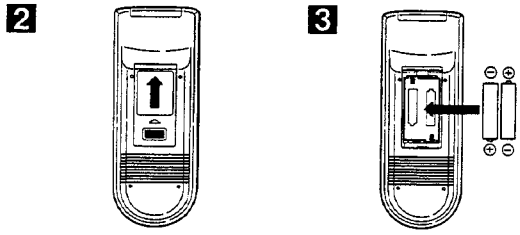


❶ **Transmission window**
❷ **Transmission indicator**
❸ **ENCORE button**
❹ **POWER button**
❺ **TV operation buttons**
These buttons are available for operating Mitsubishi TVs. See your Mitsubishi TV manual for details on the function of TV.
❻ **REC button**
❼ **REW button**
❽ **COUNTER ZERO STOP button**
❾ **COUNTER RESET/NEXT button**
❿ **MENU/PROG. button**
⓫ **JOG dial**
⓬ **DATA ON SCREEN button**
⓭ **O.K. PROG. button**
⓮ **MONITOR button**
⓯ **INDEX WRITE button**
⓰ **INDEX ERASE button**
⓱ **CHANNEL buttons**
⓲ **STOP button**
⓳ **PAUSE button**
⓴ **FF button**
㉑ **PLAY button**
㉒ **INDEX SEARCH buttons**
㉓ **JOG/SHUTTLE button**
㉔ **JOG/SHUTTLE indicator**
㉕ **SHUTTLE ring**

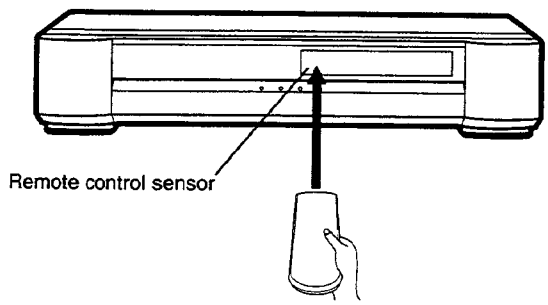
INSTALLING THE BATTERIES IN THE REMOTE CONTROL UNIT



1 Remove the packaging and take out the remote control unit and the two size "R6" batteries.
2 Slide the cover of the battery compartment in the direction of the arrow and remove.
3 Load the two batteries as shown above and replace the cover. Make sure that the polarities, + and –, are properly aligned.

CAUTION:
- Do not mix old and new batteries.
- Do not heat, disassemble, short or throw batteries into a fire.

VCR OPERATION



THIS VCR CAN BE OPERATED WITH THE REMOTE CONTROL UNIT PROVIDED.

1 Set the REMOTE switch to VCR A.
2 To operate, ensure that the transmission window on the remote control unit is pointed towards the remote control sensor on the VCR.
3 Press the desired function button.
The VCR can be operated with the remote control unit up to a distance of 7 metres.

■ When you have two Mitsubishi VCRs

1 Set the REMOTE switch on your new VCR to VCR B.
2 To operate your new VCR, press the DATA ON SCREEN button and VOLUME ∨ button at the same time.
3 To operate another VCR, press the DATA ON SCREEN button and VOLUME ∧ button at the same time.

USING THE JOG DIAL AND THE SHUTTLE RING

The JOG/SHUTTLE dial, located on the remote control unit, has two parts; the JOG dial and, outside of it, the SHUTTLE ring.
The JOG dial will turn a full 360° without breaking. The recessed finger hole in the dial makes turning easier and gives more sensitive control.
The SHUTTLE ring will turn left or right a maximum of 80°. Once the SHUTTLE ring is turned and then released, it will then spring back to the centre position.
The JOG dial and the SHUTTLE ring control all on-screen operations as well as extra fine tape transport, from frame advance right through to speed picture search. The JOG dial also works for selecting channels.
Operation of the JOG dial and the SHUTTLE ring is achieved by first pressing the 'JOG/SHUTTLE button' (or the MENU button) on the remote control unit so that the JOG/SHUTTLE indicator lights up. To switch the JOG/SHUTTLE off, press the JOG/SHUTTLE button so that the JOG/SHUTTLE indicator extinguishes.
Clockwise rotation of the JOG dial (JOG +) can be used for single frame advance or to select the next item on the on-screen menu or to select larger number channels. Anti-clockwise rotation (JOG –) can be used for single frame retreat or to select the previous item on the on-screen menu or to select smaller number channels.

NOTE:
- To save the battery power, the JOG/SHUTTLE indicator will turn off automatically if you don't operate the JOG dial or the SHUTTLE ring within 1minute after turning it on. If you still wish to use the JOG dial or the SHUTTLE ring, press the JOG/SHUTTLE button to turn on the indicator again.

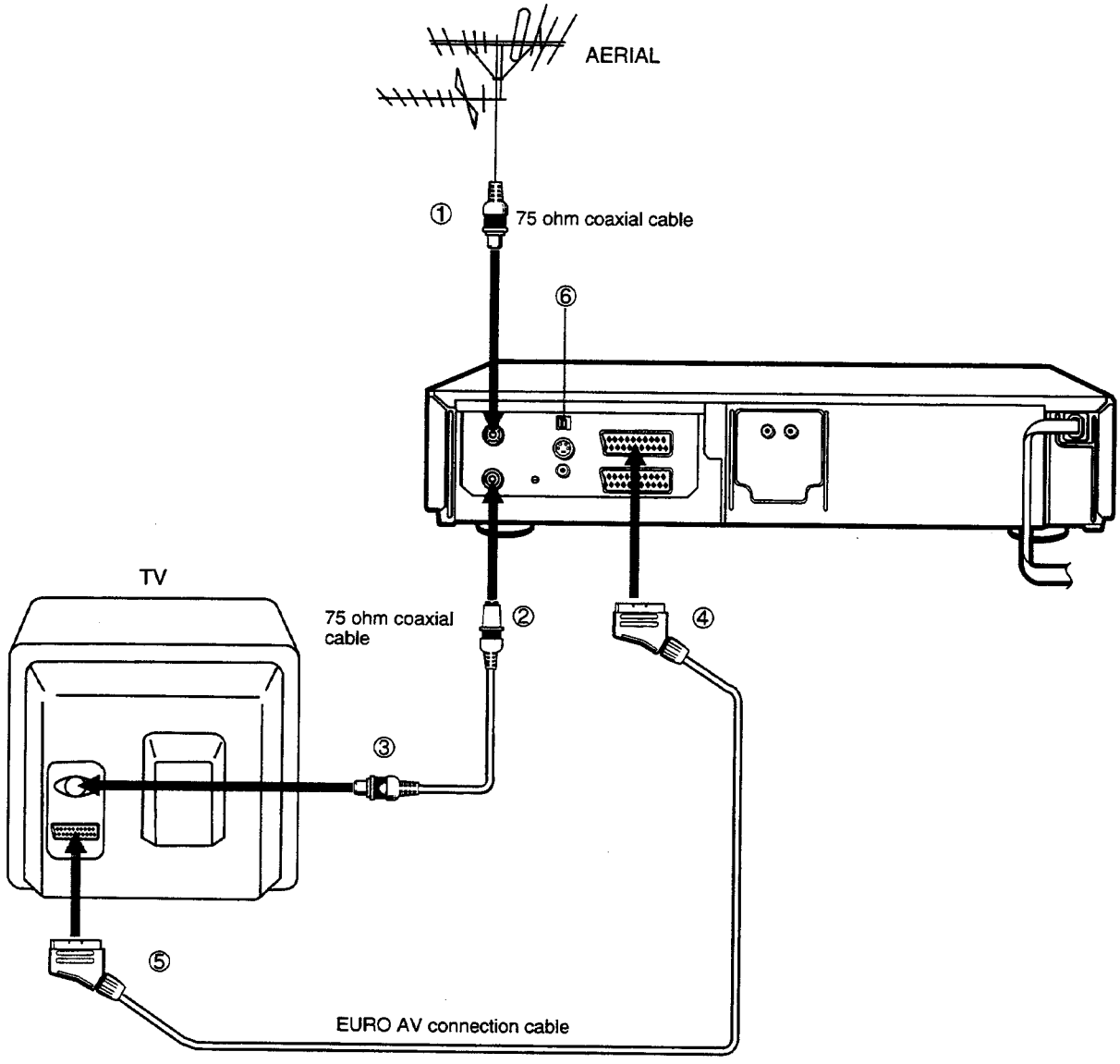
ENGLISH

CONNECTING THE AERIAL CABLES

This VCR is equipped to playback S-VHS video and VHS Hi-Fi audio. S-VHS recordings will provide superior picture quality when connected to a TV equipped with an S-VIDEO IN socket or EURO AV socket at which separate Y and C signals are availabled. Hi-Fi recordings will provide superior sound quality when connected to:

- TV receiver (or monitor) equipped with stereo speakers and stereo audio inputs.
- Stereo audio system.

Though the connection of this VCR to a monaural TV input is illustrated the benefits of Hi-Fi sound are only available when the stereo audio outputs are attached as illustrated in 2 and 3. The full benefits of S-VHS are only available when connected as illustrated in 2 or 3.



1. FOR A CONVENTIONAL TV RECEIVER

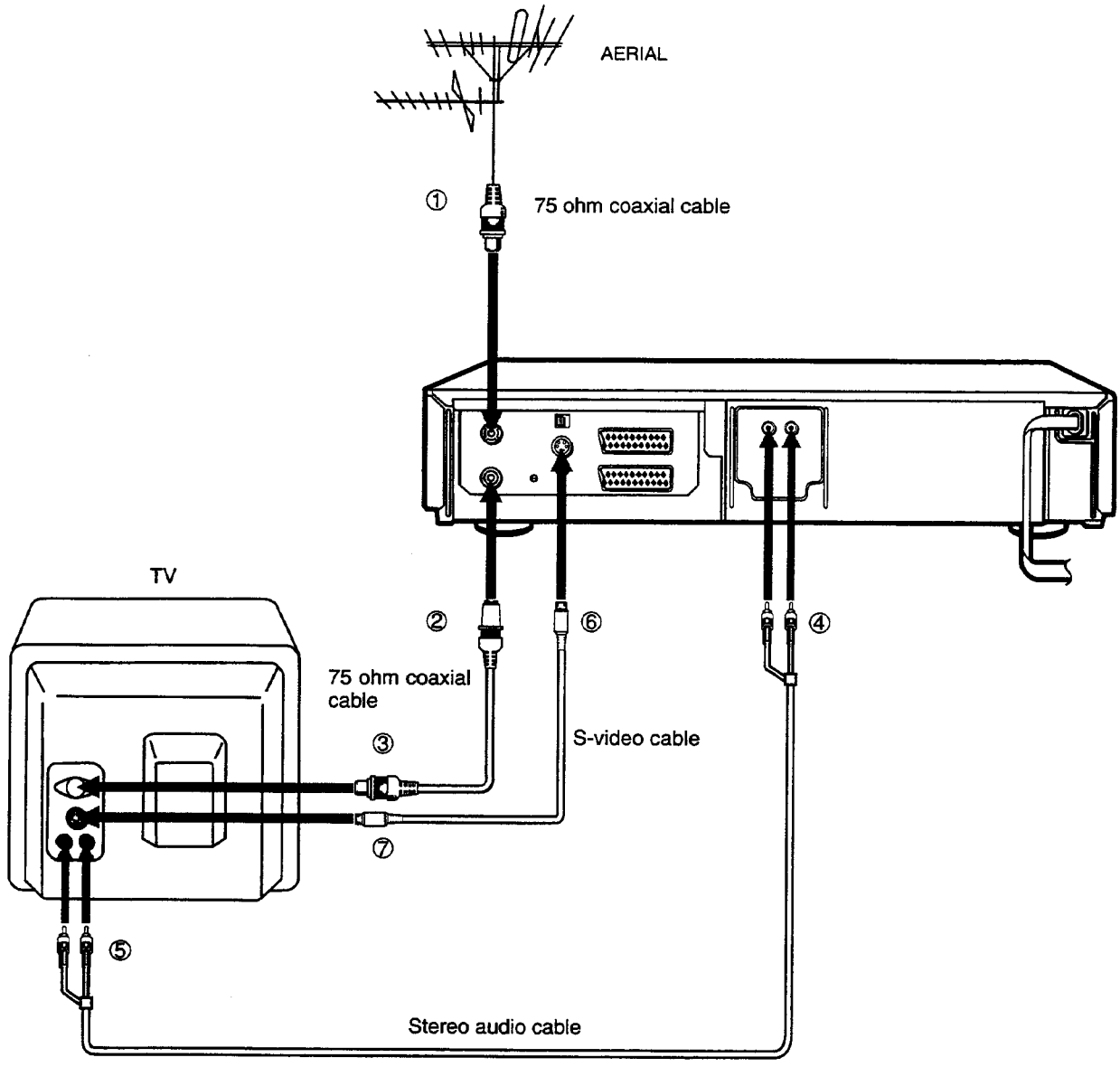
1. Connect the aerial cable to the VCR RF IN terminal ①. The aerial cable can be connected to the VCR using an IEC-type connector.
2. Connect the VCR RF OUT terminal ② to the TV aerial terminal ③ using the coaxial cable (75 ohm) provided.

2. FOR A TV RECEIVER EQUIPPED WITH EURO AV SOCKET

1. Connect the aerial cable to the VCR RF IN terminal ①.
2. Connect the VCR RF OUT terminal ② to the TV aerial terminal ③ using the coaxial cable (75 ohm) provided.
3. Connect the VCR EURO AV 1 socket ④ to the TV EURO AV socket ⑤ using the optional EURO AV connection cable.

NOTE:

- The EURO AV connection cable is available from your dealer.
- When connected to a TV equipped with an EURO AV socket at which separate Y and C signals are available, set the EURO AV 1 SELECT switch ⑥ to S-VIDEO position. For normal use, set to the COMP position. Refer to the TV instruction book.



3. TV RECEIVER EQUIPPED WITH BOTH S-VIDEO IN AND AUDIO IN SOCKETS

If your TV equipped with S-VIDEO INPUT connector, then connecting it as shown, the benefit of S-VHS playback is available.

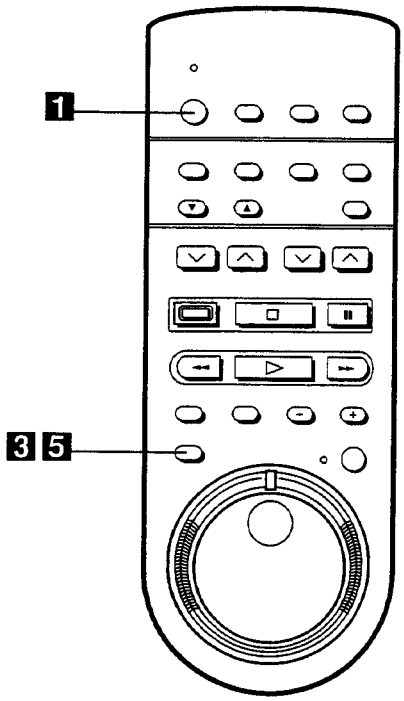
1. Connect the aerial cable to the VCR RF IN terminal ①.
2. Connect the VCR RF OUT terminal ② to the TV aerial terminal ③ using the coaxial cable (75 ohm) provided.
3. Connect the VCR AUDIO OUT (L,R) sockets ④ to the TV AUDIO IN (L,R) sockets ⑤ using the AUDIO cable provided.
4. Connect the VCR S-VIDEO OUT socket ⑥ to the TV S-VIDEO IN socket ⑦ using the S-video cable provided.

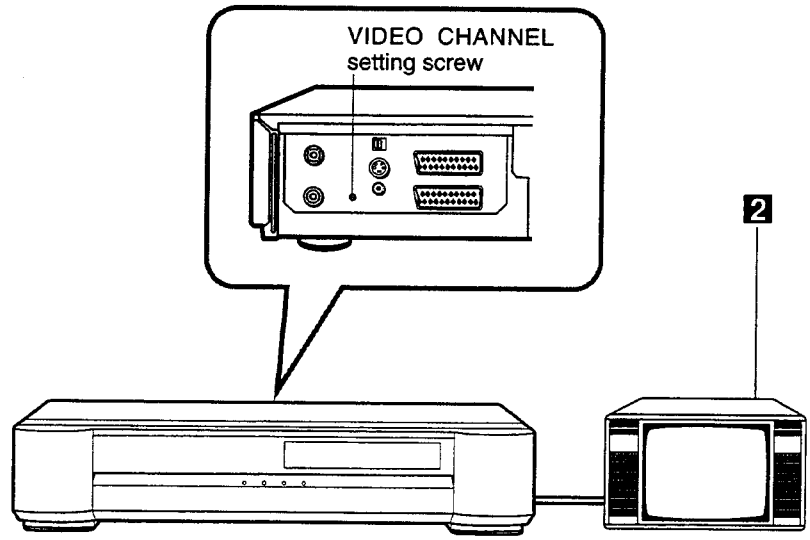
NOTE:

- When connected as shown select video (external) input on the TV to view playback of video tapes or to monitor the VCR's tuner.

SETTING THE VIDEO CHANNEL

TO WATCH THE PROGRAMME THAT IS BEING RECORDED OR TO PLAY BACK A RECORDED TAPE, THE TV RECEIVER MUST BE SET TO A SPECIFIC CHANNEL. FOLLOW THE INSTRUCTIONS BELOW.





1. Press the POWER button to ON.
2. Turn ON the TV.
3. Press the MENU button.
4. Select a vacant channel position on the TV and adjust the TV tuning until a clear picture of the menu for selecting a desired language is visible on screen.
5. Press the MENU button to exit the menu for selecting a desired language.

■ VIDEO CHANNEL
The RF converter in this VCR allows pictures and sound from the VCR to be received by a TV via its aerial socket in the same way as normal broadcasts. This RF converter is preset to UHF channel 36, setting your TV receiver to this frequency will allow it to receive VCR playback.

NOTE:

- Patterns or noise the VCR channel may be caused by interference from broadcasts on neighboring channels. These can be cleared by adjusting the VIDEO CHANNEL setting screw and then repeating the tuning procedure above. This adjustment requires precision and care and we recommend that you consult your dealer.

MULTILANGUAGE DISPLAY

The language used in on-screen displays can be selected among the following languages: German, English, French, Italian, Spanish, Portuguese, Swedish and Dutch. To select the language, proceed as follows.

1. Press the POWER button to ON.
2. Turn ON the TV and set it to the Video Channel.
3. Press the MENU button.
   (The menu for selecting a desired language appears on the TV screen.)

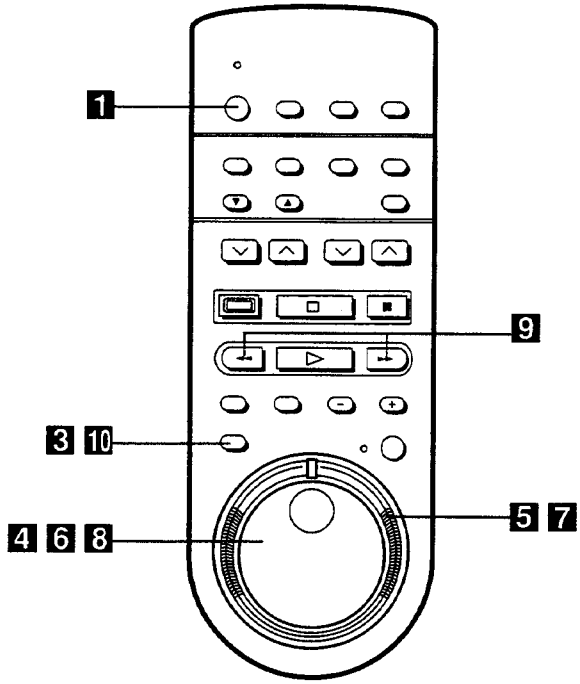
4. Turn the JOG dial to move the cursor until it is to the left of desired language.
5. Turn the SHUTTLE ring right.
   (The menu for selecting a desired language changes to the VCR MENU.)
6. Press the MENU button to exit the VCR MENU.

NOTE:

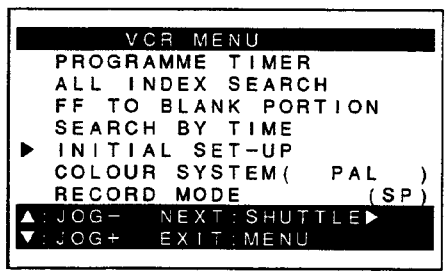
- Throughout this manual, all displays are in ENGLISH.
- In the event of the wrong language being selected, press the TIMER RESET button to cancel the selection and start over again.

CHANNEL PRESETTING

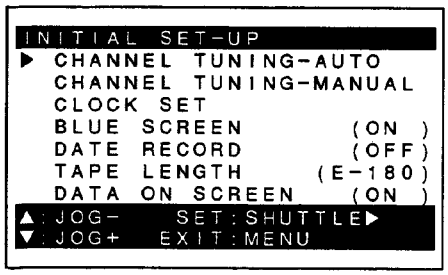
THE VCR IS EQUIPPED WITH CHANNEL AUTO TUNING SYSTEM FOR ENTERING YOUR LOCAL STATIONS IN THE CHANNEL MEMORY. AFTER CONNECTING THE AERIAL TO THE VCR AND THE VCR TO THE TV, FOLLOW THE INSTRUCTIONS BELOW.



1 Press the POWER button to ON.
2 Turn ON the TV and set it to the Video Channel.
3 Press the MENU button.
(The VCR MENU appears on the TV screen.)
4 Turn the JOG dial to move the cursor until it is to the left of item INITIAL SET-UP.

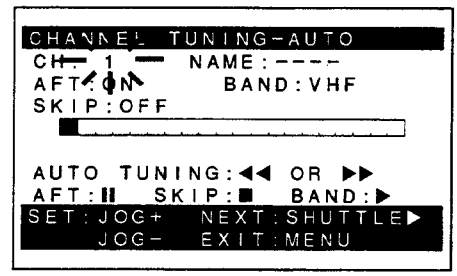


5 Turn the SHUTTLE ring right.
(The INITIAL SET-UP menu appears on the TV screen.)



6 Turn the JOG dial to move the cursor until it is to the left of item CHANNEL TUNING-AUTO.

7 Turn the SHUTTLE ring right.
(The CHANNEL TUNING-AUTO display appears on the TV screen.)



8 Turn the JOG dial to select the channel number to be preset.
- Confirm that the AFT is set to ON.
- Select the channel number 1-79 for PAL broadcast.
- Select the channel number 80-99 for SECAM broadcast.

■ If necessary, press the PLAY button to select the appropriate band. The selected band is displayed on the TV screen.

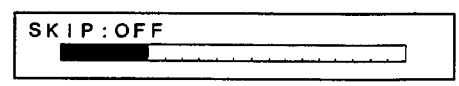
VHF	2–12 S'1–S'3(CATV) S1–S10(CATV)	BAND:VHF
HYPER	S11–S41(CATV)	BAND:HYP
UHF	21–69	BAND:UHF

- If the band is selected by using the PLAY button, the scanning starts from the lowest frequency position of that band when the FF button is pressed.

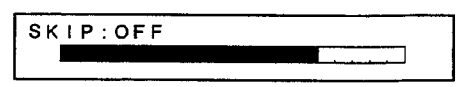
9 Press the FF button to start the automatic scanning to a higher frequency or the REW button to a lower. When a broadcast is detected, scanning stops automatically. To advance it to the next station, press the FF button or REW button again.

■ The approximate tuning at each band can be checked with the rough channel indicator displayed in sequence from left to right. When the tuning is adjusted towards a higher channel, additional indicators are displayed.

Tuning lower in the band



Tuning higher in the band



- When presetting additional channels, repeat 8 – 9.

10 Press the MENU button to exit the CHANNEL TUNING-AUTO display.

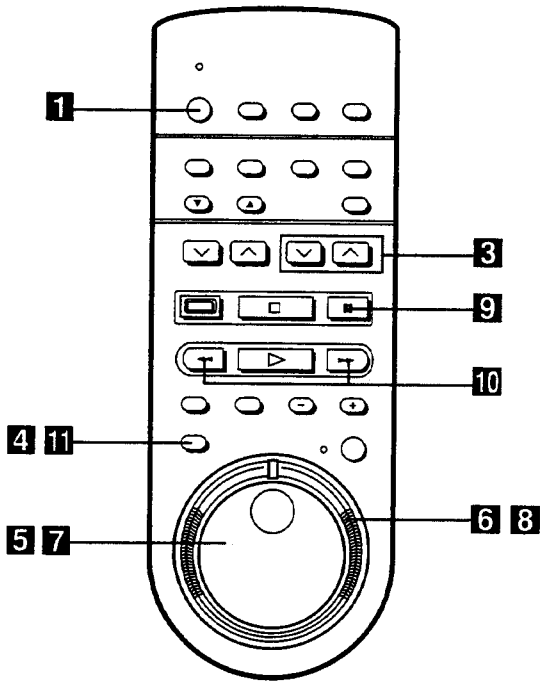
NOTE:
- Confirm that the desired channel has been selected by checking a TV programme guide or TV channel.
- When a broadcast is not detected by pressing the REW button in step 9, press the FF button.

ENGLISH

ENGLISH

FINE TUNING

This Voltage Synthesizer Tuner has an Automatic Fine Tuning (AFT) feature which is normally ON for automatically maintaining your best channel picture. If your channel reception is weak or has interference you may want to try turning the AFT OFF. This procedure is described below.



1. Press the POWER button to ON.
2. Turn ON the TV and set it to the Video Channel.
3. Press the CHANNEL buttons to select the channel to be fine tuned.
4. Press the MENU button.
   (The VCR MENU appears on the TV screen.)
5. Turn the JOG dial to move the cursor until it is to the left of item INITIAL SET-UP.

```
        VCR MENU
   PROGRAMME TIMER
   ALL INDEX SEARCH
   FF TO BLANK PORTION
   SEARCH BY TIME
▶  INITIAL SET-UP
   COLOUR SYSTEM(   PAL   )
   RECORD MODE        (SP)
▲:JOG-   NEXT:SHUTTLE▶
▼:JOG+   EXIT:MENU
```

6. Turn the SHUTTLE ring right.
   (The INITIAL SET-UP menu appears on the TV screen.)
7. Turn the JOG dial to move the cursor until it is to the left of item CHANNEL TUNING-MANUAL.

```
INITIAL SET-UP
   CHANNEL TUNING-AUTO
▶  CHANNEL TUNING-MANUAL
   CLOCK SET
   BLUE SCREEN          (ON )
   DATE RECORD          (OFF)
   TAPE LENGTH       (E-180)
   DATA ON SCREEN       (ON )
▲:JOG-   SET:SHUTTLE▶
▼:JOG+   EXIT:MENU
```

8. Turn the SHUTTLE ring right.
   (The CHANNEL TUNING-MANUAL display appears on the TV screen.)

```
CHANNEL TUNING-MANUAL
CH 32 — NAME:----
AFT:ON      BAND:UHF
SKIP:OFF

FINE TUNING:◀◀ OR ▶▶
AFT:II   SKIP:■
SET:JOG+   NEXT:SHUTTLE▶
    JOG-   EXIT:MENU
```

9. Set the AFT to OFF by pressing the PAUSE button.
10. Press the REW button or the FF button to adjust the picture.
11. Press the MENU button to exit the CHANNEL TUNING-MANUAL display.

SKIP MODE

Though 99 channels are available for presetting to desired TV channels, you may wish to skip unused channels so that only preset channels will be called up by pressing the CHANNEL buttons. For this purpose, proceed as follows:

1. Press the POWER button to ON.
2. Turn ON the TV and set it to the Video Channel.
3. Press the MENU button.
   (The VCR MENU appears on the TV screen.)
4. Turn the JOG dial to move the cursor until it is to the left of item INITIAL SET-UP.
5. Turn the SHUTTLE ring right.
   (The INITIAL SET-UP menu appears on the TV screen.)
6. Turn the JOG dial to move the cursor until it is to the left of item CHANNEL TUNING-MANUAL.
7. Turn the SHUTTLE ring right.
   (The CHANNEL TUNING-MANUAL display appears on the TV screen.)
8. Select a channel to be skipped using the JOG dial.
9. Set the SKIP to ON by pressing the STOP button to engage skip mode.

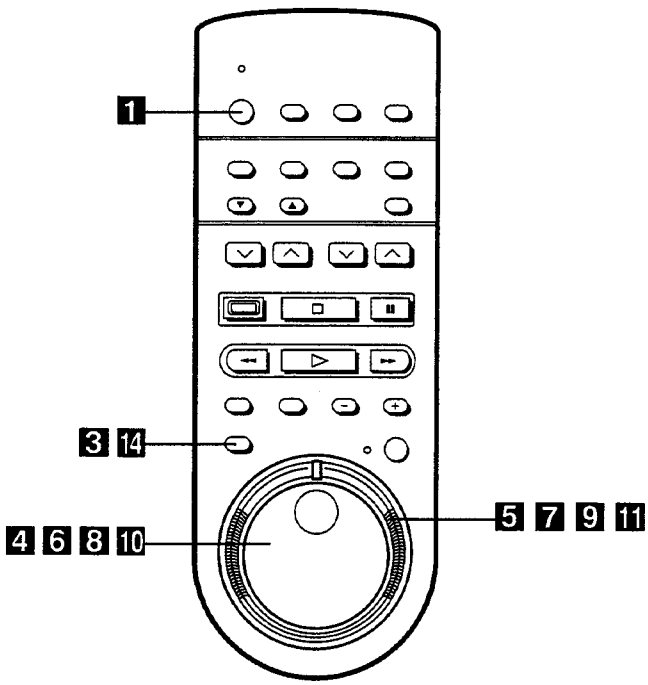
```
AFT:ON          AFT:ON
SKIP:OFF   ➡    SKIP:ON
```

- To release from skip mode, set the SKIP to OFF by pressing the STOP button again.

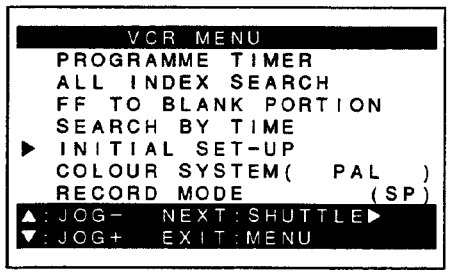
10. Repeat steps 8 and 9 as many times as necessary to engage skip mode for unused channels.
11. Press the MENU button to exit the CHANNEL TUNING-MANUAL display.

NAMING CHANNELS

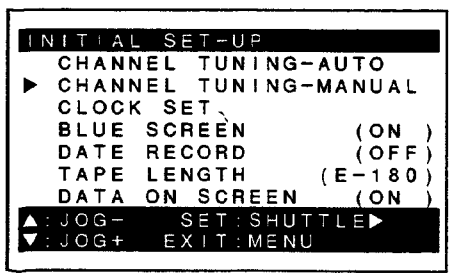
If necessary, you can display the broadcasting station name beside the channel number on the TV screen when you select channels on the VCR.



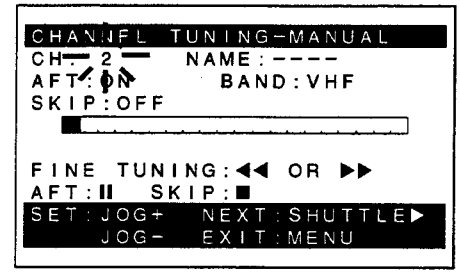
1 Press the POWER to ON.
2 Turn ON the TV and set it to the Video Channel.
3 Press the MENU button.
(The VCR MENU appears on the TV screen.)
4 Turn the JOG dial to move the cursor until it is to the left of item INITIAL SET-UP.



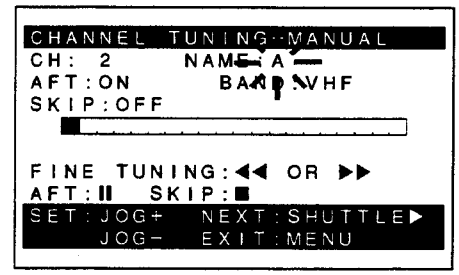
5 Turn the SHUTTLE ring right.
(The INITIAL SET-UP menu appears on the TV screen.)
6 Turn the JOG dial to move the cursor until it is to the left of item CHANNEL TUNING-MANUAL.



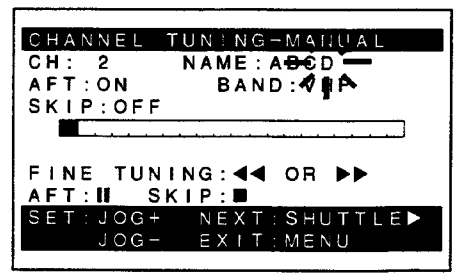
7 Turn the SHUTTLE ring right.
(The CHANNEL TUNING-MANUAL display appears on the TV screen.)
8 Turn the JOG dial to select the channel to be named.



9 Turn the SHUTTLE ring right.
(The flashing moves to the setting of the first character of the station name.)
10 Turn the JOG dial to select the first character of the station name.



11 Turn the SHUTTLE ring right.
(The flashing moves to the setting of the second character of the station name.)
12 Repeat the same procedure as steps 10 and 11 to select the rest characters for the name.
- The number of characters for each station name is four at most.



13 Repeat steps 8 through 12 for other channels.
14 Press the MENU button to exit the CHANNEL TUNING-MANUAL display.

NOTE:
- To cancel the name, select the channel to be canceled in step 8 and turn the SHUTTLE ring right. Then turn the SHUTTLE ring left.
- The channels 1-60 can be named. (It is impossible to name channels 61-99.)

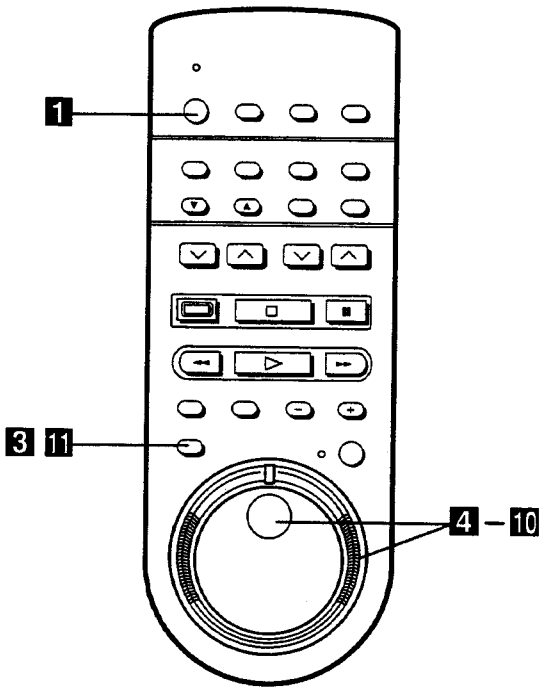
ENGLISH

SETTING THE PRESENT TIME

THE CORRECT TIME SHOULD BE SET ON THE TIMER OF YOUR VCR TO ALLOW YOU TO PROGRAMME YOUR VCR TO RECORD AT SPECIFIC TIMES. TO SET THE TIME, USE EITHER OF THE FOLLOWING PROCEDURES:

1. Clock setting using the JOG dial and the SHUTTLE ring.
2. Clock setting using the O.K. PROG. button only. (Available only for the first clock setting.)

1. CLOCK SETTING USING THE JOG DIAL AND THE SHUTTLE RING



1 Press the POWER button to ON.
2 Turn ON the TV and set it to the Video Channel.
3 Press the MENU button.
(The VCR MENU appears on the TV screen.)

```
VCR MENU
▶ PROGRAMME TIMER
  ALL INDEX SEARCH
  FF TO BLANK PORTION
  SEARCH BY TIME
  INITIAL SET-UP
  COLOUR SYSTEM(   PAL   )
  RECORD MODE        (SP)
```

4 Turn the JOG dial to move the cursor until it is to the left of item INITIAL SET-UP and turn the SHUTTLE ring right.
(The INITIAL SET-UP menu appears on the TV screen.)

```
INITIAL SET-UP
▶ CHANNEL TUNING-AUTO
  CHANNEL TUNING-MANUAL
  CLOCK SET
  BLUE SCREEN        (ON )
  DATE RECORD        (OFF)
  TAPE LENGTH     (E-180)
  DATA ON SCREEN     (ON )
```

5 Turn the JOG dial to move the cursor until it is to the left of item CLOCK SET and turn the SHUTTLE ring right.
(The CLOCK SET display appears on the TV screen.)

```
CLOCK SET
▶ MONTH
  YEAR
  DATE      -- --
  TIME      --:--
```

6 Turn the JOG dial to select the month. Turn the SHUTTLE ring right to enter the selection.

```
CLOCK SET
▶ MONTH      3
  YEAR    1993
  DATE    1 MO
  TIME    0:00
```

7 Turn the JOG dial to select the year. Turn the SHUTTLE ring right to enter the selection.

```
CLOCK SET
  MONTH      3
▶ YEAR    1993
  DATE    1 MO
  TIME    0:00
```

8 Turn the JOG dial to select the day. Turn the SHUTTLE ring right to enter the selection.

```
CLOCK SET
  MONTH      3
  YEAR    1993
▶ DATE   16 TU
  TIME    0:00
```

9 Turn the JOG dial to select the hour. Turn the SHUTTLE ring right to enter the selection.

```
CLOCK SET
  MONTH      3
  YEAR    1993
  DATE   16 TU
▶ TIME   19:00
```

10 Turn the JOG dial to select the minutes.

```
CLOCK SET
  MONTH      3
  YEAR    1993
  DATE   16 TU
▶ TIME   19:30
```

11 Press the MENU button.
(The CLOCK SET display will disappear and the clock will begin to advance.)

NOTE:

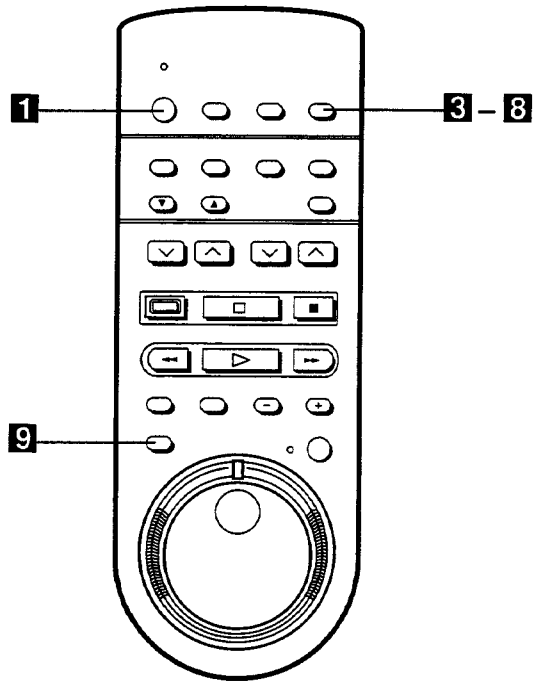
- A 24-hour display is used. [0:00] indicates midnight: [12:00] midday and [15:00] 3 o'clock in the afternoon.
- The clock will not advance until the MENU button is pressed to complete the time setting.
- The year digits can be set to 1993-2007.

SETTING THE TIME (TO THE SECOND)

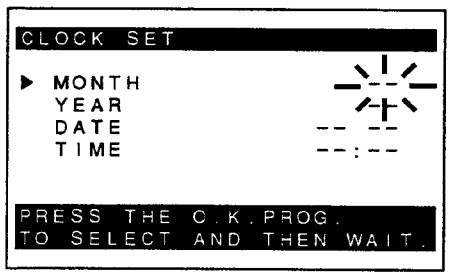
Set the clock as described in steps 3 – 10 and press the MENU button exactly at zero seconds.

ENGLISH

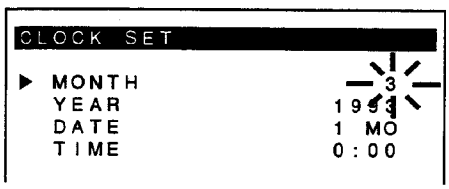
2. CLOCK SETTING USING THE O.K. PROG. BUTTON ONLY



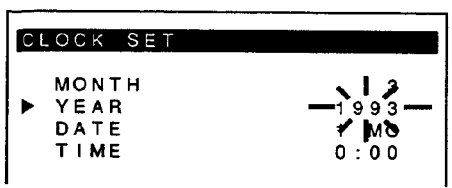
1 Press the POWER button to ON.
2 Turn ON the TV and set it to the Video Channel.
3 Press the O.K. PROG. button.
(The CLOCK SET display appears on the TV screen.)



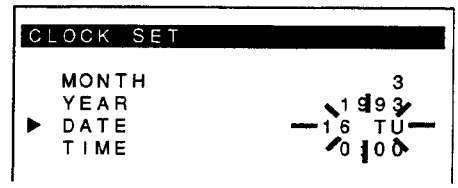
4 Press the O.K. PROG. button to select the month and wait for about 4 seconds.
(The flashing moves to the next setting item automatically.)



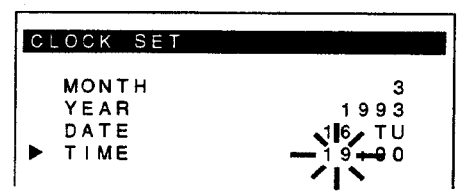
5 Press the O.K. PROG. button to select the year and wait for about 4 seconds.
(The flashing moves to the next setting item automatically.)



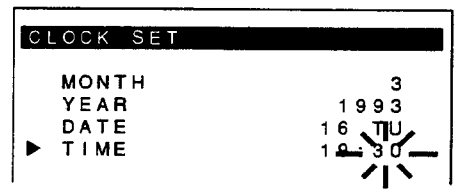
6 Press the O.K. PROG. button to select the day and wait for about 4 seconds.
(The flashing moves to the next setting item automatically.)



7 Press the O.K. PROG. button to select the hour and wait for about 4 seconds.
(The flashing moves to the next setting item automatically.)



8 Press the O.K. PROG. button to select the minutes.



9 Press the MENU button.
(The CLOCK SET display will disappear and the clock will begin to advance.)
- If the MENU button is not pressed within 4 seconds, the PROGRAMME TIMER setting display appears on the TV screen.

NOTE:
- Clock setting using the O.K.PROG. button is available only when the clock has not been set. If the clock has been set, the PROGRAMME TIMER setting display appears when the O.K. PROG. button is pressed in step 3. Press the MENU button to exit the PROGRAMME TIMER setting display.
- A 24-hour display is used. [0:00] indicates midnight: [12:00] midday and [15:00] 3 o'clock in the afternoon.
- The year digits can be set to 1993 - 2007.
- To change the clock setting during setting, turn the SHUTTLE ring on the remote control unit (or press the PLAY or STOP button on the VCR) to select the setting items and then turn the JOG dial on the remote control unit (or press the FF or REW button on the VCR) to change the contents.

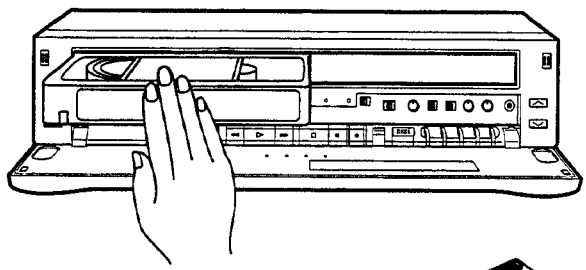
ENGLISH

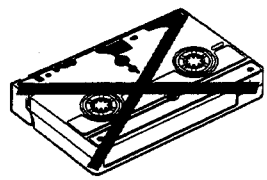
LOADING AND UNLOADING THE VIDEO CASSETTE

A VIDEO CASSETTE CAN NOT BE LOADED OR UNLOADED UNLESS THE MAINS LEAD HAS BEEN CONNECTED. USE ONLY VIDEO CASSETTE TAPES MARKED S-VHS or VHS.
The previous S-VHS logo mark has been changed to S-VHS. Regardless of this change in the official logo, the S-VHS system represented by either logo, new or old, remains completely identical, and therefore products carrying either logo can be used interchangeably.

TO LOAD

A VIDEO CASSETTE CAN BE LOADED WITH THE VCR POWER TURNED OFF.





Insert the cassette with labeled side facing you. Push the cassette gently inward until it is automatically retracted and loaded in the correct position. (The VCR POWER is automatically switched ON. The cassette status indicator (⊃⊂) is illuminated.)

NOTE:
- If a desired function button is pressed before the time the cassette is loaded completely (the cassette status indicator (⊃⊂) is illuminated), the function will be activated after the cassette is loaded.
- Depending on the way of loading the cassette, the protection circuit inside the VCR may eject the cassette automatically. In such a case, wait a few seconds, take out the cassette and load it again.
- When the lock indicator (δ) is illuminated on the fluorescent display, a video cassette can not be loaded (see CHILD LOCK on page 18).

■ AUTO PLAY
If a cassette with the erasure prevention tab removed (see HINTS ON CASSETTE TAPES below) is loaded, the unit automatically switches to play mode and playback begins.

■ AUTO COUNTER RESET
The elapsed time counter display is reset to 0H00M00s when the cassette tape is inserted.

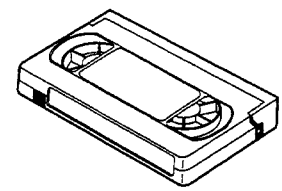
TO UNLOAD

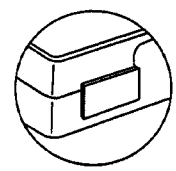
1. Press the EJECT button in the stop mode and the cassette will be automatically ejected.
2. Take out the cassette.

■ POWER OFF EJECT
Even if the VCR is turned off the cassette may be ejected by pressing the EJECT button . The VCR will automatically turn on, eject the tape, and turn off.

NOTE:
- To prevent misrecording, it is not possible to unload the tape from the record mode. Press the STOP button first and then press the EJECT button.

HINTS ON CASSETTE TAPES



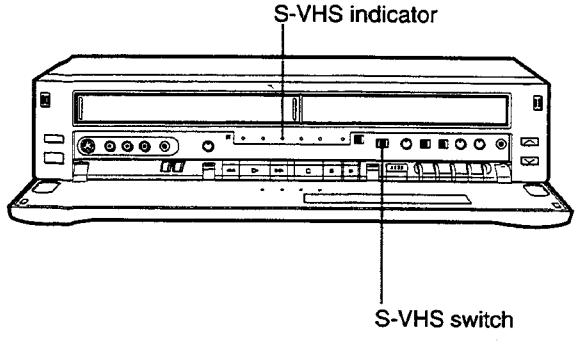


■ ACCIDENTAL ERASURE PREVENTION
Every video cassette comes with an erasure prevention tab. To preserve a recording break off this tab to ensure that the contents cannot be erased. To re-record such a tape, simply stick a piece of cardboard over the gap.

NOTE:
- Never repair a broken tape with a piece of adhesive tape as this will damage the video heads.

S-VHS RECORDING SYSTEM

IN ORDER TO RECORD IN THE S-VHS MODE AN S-VHS TAPE MUST BE USED. THE TABLE BELOW INDICATES THE VARIOUS COMBINATIONS POSSIBLE.

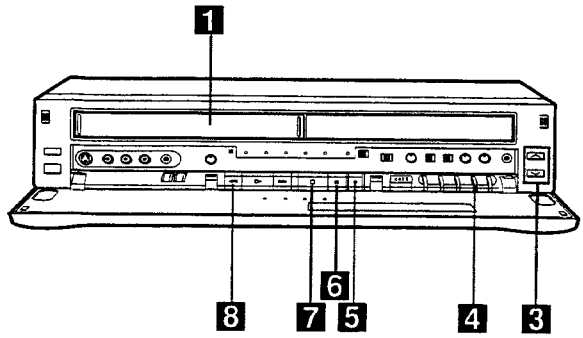


Set the S-VHS switch to ON for S-VHS recording on an S-VHS tape.

S-VHS switch	Recording on S-VHS tape	Recording on normal VHS tape
ON	Tape records in S-VHS (S-VHS indicator illuminates.)	Tape records in VHS (When using a VHS tape, recording will be performed with the VHS system even if the S-VHS switch is at the ON position, and the S-VHS indicator will not light.)
OFF	Tape records in VHS (S-VHS indicator off.)	Tape records in VHS (S-VHS indicator off.)

NOTE:
- During playback S-VHS or VHS is automatically selected.
- S-VHS recordings cannot be playback on a VHS VCR unless it is equipped with the SQPB function for S-VHS quasi playback.

RECORDING TV PROGRAMMES



1 Load a cassette with the erasure prevention tab intact.
2 Turn ON the TV and set it to the Video Channel.
3 Press the CHANNEL buttons to select the desired channel.
- When the channel 80 –99 is selected, the colour system will be automatically set to MESECAM.

4 Press the TAPE SPEED button to select the desired tape speed SP or LP.
5 Press the REC button to start recording.

NOTE:
- Attempting to record on a cassette that has had its erasure prevention tab removed will result in the cassette status indicator (⊂⊃) flashes for approximately 4 seconds when the REC button is pressed (see HINTS ON CASSETTE TAPES on page 15).

6 Press the PAUSE button to cut commercials or other material out of the recording.
Press the button again to resume the recording.
7 Press the STOP button to stop the recording.
8 Press the REW button to rewind the tape.
The tape automatically rewinds when it reaches the end (automatic rewind mechanism).

NOTE:
- To protect a tape, after about 5 minutes in the recording pause mode the recording will stop.

RECEPTION SIGNAL

External Audio and Video sources can be utilised by this VCR. Connections to this VCR can be made at the front or rear.
To use external sources the VCR requires the correct selection of the external channel. To select an external channel, press the CHANNEL buttons until L1 or L2 is displayed on the fluorescent display. L1 switches on the sockets on the rear of the VCR, while L2 indicates sockets on the front. The table below shows the various conditions applicable to external channels.

	FLUORESCENT DISPLAY	VIDEO	AUDIO
TUNER	0	TV picture (from built-in tuner)	TV sound (from built-in tuner)
EXTERNAL 1	L1	Video signal from an external source connected to the EURO AV 1 or 2 socket on the rear panel.	Audio signal from an external source connected to the EURO AV 1 or 2 socket on the rear panel.
EXTERNAL 2	L2	Video signal from an external source connected to the S-VIDEO IN or VIDEO IN ② socket on the front panel.	Audio signal from an external source connected to the AUDIO IN ② sockets on the front panel.

- When an S-VIDEO cable is connected to the S-VIDEO IN socket, the video signal from the VIDEO IN ② socket cannot be recorded.

TAPE SPEED

When the TAPE SPEED button is pressed, the tape speeds will be switched on in the order of SP→LP→SP····.
The tape speed can also be selected by using the VCR MENU.

1 Press the MENU button.
(The VCR MENU appears on the TV screen.)
2 Turn the JOG dial to move the cursor until it is to the left of item RECORD MODE.

3 Set the RECORD MODE to SP or LP by turning the SHUTTLE ring.
4 Press the MENU button to exit the VCR MENU.

■ TYPES OF CASSETTE AND MAXIMUM RECORDING TIME

	Fluorescent display	E-240	E-180	E-120	E-60	E-30
SP	SP	4 hrs.	3 hrs.	2 hrs.	1 hr.	30 min.
LP	LP	8 hrs.	6 hrs.	4 hrs.	2 hrs.	1 hr.

- "LP" recordings cannot be played back on VHS-SP video recorders.

RECORDING ONE PROGRAMME WHILE WATCHING ANOTHER

1 Select the VCR channel you want to record and start the recording.
2 Select the TV channel you want to watch.
3 To check the picture during recording, switch the TV to the Video Channel.

TWIN INTELLIGENT PICTURE CONTROL

If the INTELLIGENT PICTURE switch is set to ON during recording, the VCR automatically samples the quality of the tape and enhances picture sharpness and resolution with high grade tapes.
When a cassette is loaded into the VCR, the first recording will be used by the VCR to detect the tape grade.
Intelligent picture control can also be used in playback of tapes. This is further explained in the playback section (page 20).

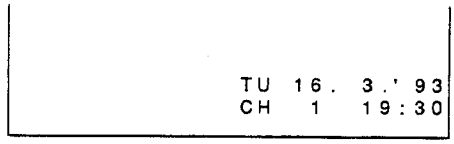
NOTE:
- Since it only takes approximately 1-2 seconds to distinguish the grade of each tape once it is loaded and the VCR is put into record mode, intelligent picture control can be switched ON all the time.
- Intelligent picture control may not work correctly if there is no video signal present at the start of the first recording.

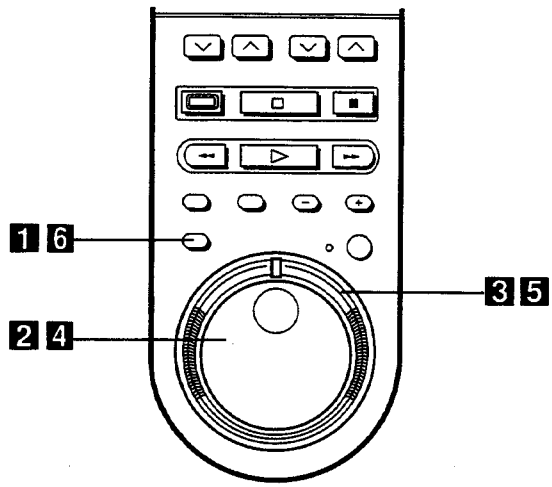
ENGLISH

ENGLISH

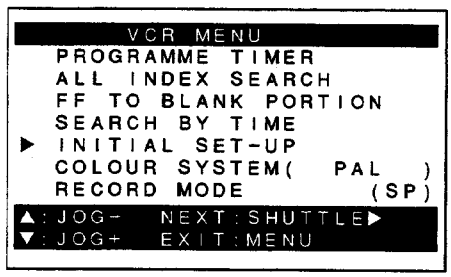
DATE RECORD

If the DATE RECORD function is set to ON, the present time display is recorded on the tape for about 5 seconds at the start of the recording.

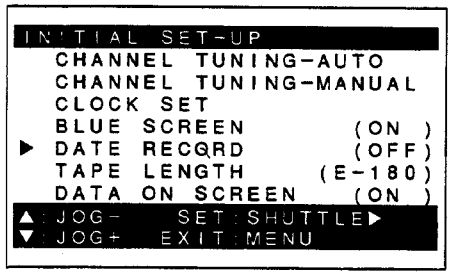




1 Press the MENU button.
(The VCR MENU appears on the TV screen.)
2 Turn the JOG dial to move the cursor until it is to the left of item INITIAL SET-UP.



3 Turn the SHUTTLE ring right.
(The INITIAL SET-UP menu appears on the TV screen.)
4 Turn the JOG dial to move the cursor until it is to the left of item DATE RECORD.



5 Set the DATE RECORD to ON by turning the SHUTTLE ring.
6 Press the MENU button to exit the INITIAL SET-UP menu.

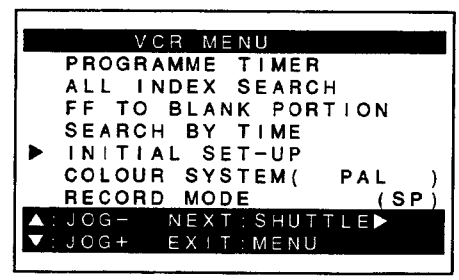
NOTE:

- The date record will not function when recording is resumed from the record pause mode.
- Depending on the broadcast signal conditions, the letters of display may be in colour.

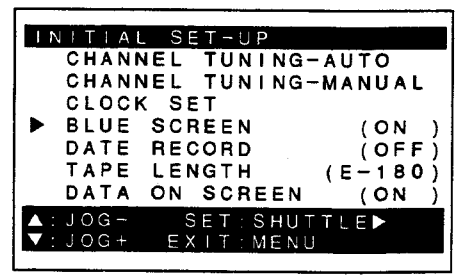
BLUE SCREEN

When the BLUE SCREEN function is set to ON, the TV screen will switch to blue in any of following conditions:
— when a channel with no broadcast is selected.
— when the broadcast is closed.
— when the reception signal is switched to EXT and no video signal is present.
— when a tape on which only audio signals are recorded is played back.
Your VCR is shipped set with ON reserved for BLUE SCREEN function. If the broadcast signal is weak, the BLUE SCREEN function may be activated. To view a programme with a weak broadcast signal, then set to OFF as follows.

1 Press the MENU button.
(The VCR MENU appears on the TV screen.)
2 Turn the JOG dial to move the cursor until it is to the left of item INITIAL SET-UP.



3 Turn the SHUTTLE ring right.
(The INITIAL SET-UP menu appears on the TV screen.)
4 Turn the JOG dial to move the cursor until it is to the left of item BLUE SCREEN.



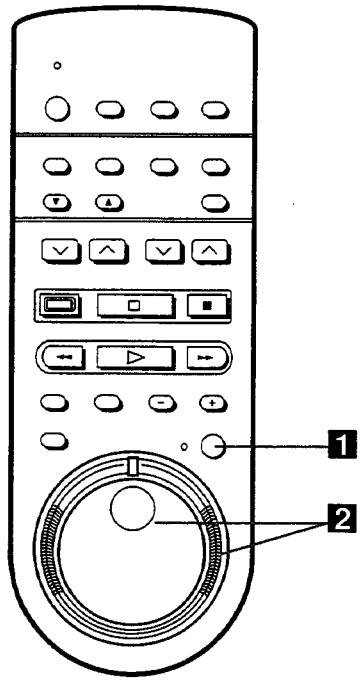
5 Set the BLUE SCREEN to OFF by turning the SHUTTLE ring.
6 Press the MENU button to exit the INITIAL SET-UP menu.

NOTE:

- The BLUE SCREEN function may not work correctly when a non-recorded section of the tape is played back.

CM EDIT SEARCH

Convenient for adjusting the position of a tape during record pause so that the new recording can be precisely aligned with the old recording.



1 In recording pause mode, press the JOG/SHUTTLE button. (The JOG/SHUTTLE indicator will be illuminated.)
2 Turn either the JOG dial or SHUTTLE ring to locate the recording position.
3 Turn the SHUTTLE ring to centre position. (After 3 seconds the TV screen will change to the picture you wish to record and return to recording pause mode.)

■ You may also use the REW and FF buttons in recording pause mode to activate the edit search.
- Press and hold the REW button. Reverse playback occurs while the button is held.
- Press and hold the FF button. Playback occurs while the button is held.

Release the button when the picture you wish to start recording locates. (After 3 seconds the TV screen will change to the picture you wish to record and return to recording pause mode.)

CM EDIT BACK

If a tape is accidentally released from record pause mode too soon then press the REW button within 8 seconds and the tape will automatically return to the point at which the pause was released and record pause will once again be set.

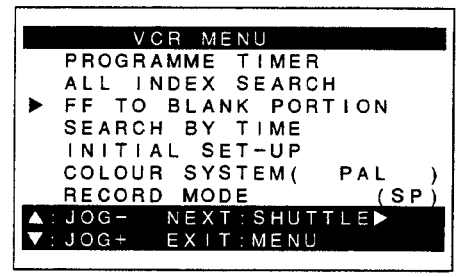
CHILD LOCK

CHILD LOCK function is included to prevent unsupervised operation. Press and hold the DATA ON SCREEN button for about 8 seconds until the lock indicator (δ) on the fluorescent display is illuminated. To cancel the function, press and hold the same button for about 8 seconds until the lock indicator (δ) is turned off.

BLANK SEARCH (FF TO BLANK PORTION)

Convenient for rapidly locating the end of a pre-recorded segment on the tape.

1 Press the MENU button.
(The VCR MENU appears on the TV screen.)
2 Turn the JOG dial to move the cursor until it is to the left of item FF TO BLANK PORTION.



3 Turn the SHUTTLE ring right.
The VCR will fast forward the tape and stop automatically when the end of the recorded segment on the tape is reached.
- At the end of a new recording that is made over an old longer recording there will be a short blank portion of tape lasting approximately 2 seconds. Blank portion search will locate and stop at this short blank portion.

FRAME TO FRAME CONTINUITY

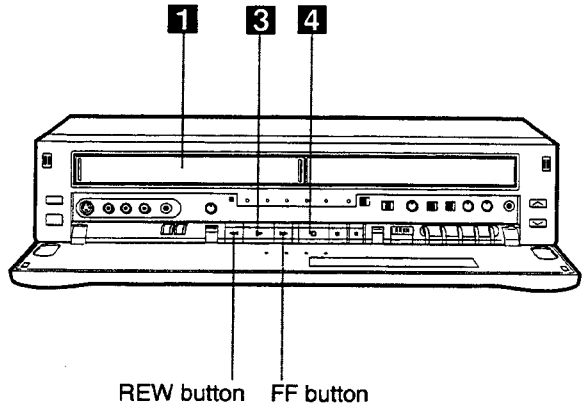
Follow the instructions below to ensure frame to frame continuity in your recordings.

1 Press the PLAY button to start playback.
2 Press the JOG/SHUTTLE button. (The JOG/SHUTTLE indicator will be illuminated and the VCR will be in pause mode.)
3 Turn the SHUTTLE ring to locate the point at which you wish to start recording.
4 Turn back the SHUTTLE ring to the centre.
5 Turn the JOG dial to locate the precise position of recording.
6 Press the REC button and the VCR will be placed in the pause mode.
7 Press the PAUSE button to release the pause mode and start recording.

ENGLISH

PLAYBACK

TO PLAY BACK A PRE-RECORDED CASSETTE PROCEED AS FOLLOWS.



ENGLISH

BASIC OPERATION

1 Load a pre-recorded tape.
- If a cassette with the erasure prevention tab removed is loaded the unit automatically switches to play mode and playback begins.

2 Turn ON the TV and set it to the Video Channel.

■ If necessary, set the COLOUR SYSTEM of the VCR MENU to the appropriate position. (See COLOUR SYSTEM on the right.)

3 Press the PLAY button to start playback.
4 Press the STOP button to stop playback.

■ REWINDING
Press the REW button to rewind the tape.

■ FAST FORWARD
Press the FF button to run the tape fast forward.

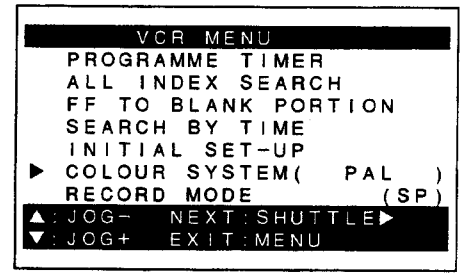
■ AUTOMATIC REWIND MECHANISM
When the tape reaches the end in the recording, playback or forward speed search mode, it is rewound automatically, and then stops.
The automatic rewind does not work when the tape reaches the end in the following situations:
- Blank search
- One touch timer recording
- Programmed recording
- Search by time
- Index search

NOTE:
- Fast forward or rewind can be engaged only when the VCR is in the stop mode. If selected during playback, speed search mode will be engaged.

COLOUR SYSTEM

When playing back a tape recorded in MESECAM, set the COLOUR SYSTEM of the VCR MENU to MESECAM as follows.

1 Press the MENU button.
(The VCR MENU appears on the TV screen.)
2 Turn the JOG dial to move the cursor until it is to the left of item COLOUR SYSTEM.



3 Set the COLOUR SYSTEM to MESECAM by turning the SHUTTLE ring right.
4 Press the MENU button to exit the VCR MENU.

NOTE:
- This VCR does not play back a tape recorded in SECAM.
- When playing back a tape recorded in MESECAM at LP mode, the colour noise may appear.

WARNING:
1. This set is for exclusive use with the PAL colour system (system B and G).
2. SECAM (system B and G) colour programmes can be recorded in certain areas but there is no interchangeability of these recorded cassette tapes with other PAL-VHS recorders or SECAM-VHS recorders.
3. Please use the excluseve SECAM-VHS recorder in French SECAM broadcasting areas.
4. Please use only PAL pre-recorded cassette tapes of PAL signals which have been recorded with the PAL-VHS system.

NTSC PLAYBACK (ON PAL TV)

Tapes recorded in NTSC can be played back with this VCR via a PAL system TV sets.

NOTE:
- Depending on types of TV sets used, the picture may shrink vertically and black bars both the top and bottom on the screen. This is not an indication of a malfunction.
- The playback picture may roll up and down.
If the TV set is equipped with a V-HOLD control, it may be possible to stop the picture movement by adjusting this control.
However, TVs not equipped with a V-HOLD control cannot correct this condition.
- During special playback, the picture may not be in colour.
- Recording in the NTSC system is not possible with this VCR.
- This function is designed only to allow the playback of tapes recorded by NTSC signals on a PAL system TV. The NTSC signal is not completely converted to a PAL signal. For this reason, images played back by this function cannot be recorded on another VCR.
- The Hi-Fi sound recorded in NTSC cannot be played back. Only NORMAL sound is played back.
- The noise may appear on the screen when playing back a tape recorded at LP in S-VHS system.
- The noise may appear on the screen when playing back a tape recorded at EP.

AUTOMATIC DIGITAL TRACKING

■ AUTOMATIC DIGITAL TRACKING
Insert a cassette and press the PLAY button. The DTR indicator will flash until tracking is set.
If, during playback,a border between recorded sections on two different VCRs is encountered, the digital tracking will be automatically reset.

NOTE:
- During digital tracking adjustment some noise in the picture or Hi-Fi sound is normal.

■ MANUAL TRACKING
This should only be necessary on very worn out tapes where automatic digital tracking will not operate.
Press the CHANNEL buttons on the VCR one at a time during playback to adjust tracking and reduce interference.

NOTE:
- To switch from manual tracking back to automatic digital tracking, press the CHANNEL ∧ and ∨ buttons on the VCR at the same time.

PICTURE QUALITY ADJUSTMENT

This control allows you to adjust the playback picture so that the outline of objects are sharper or softer. Rotate the PICTURE control for the picture desired.

NOTE:
- This control is only available when INTELLIGENT PICTURE switch is set to OFF and playback mode is engaged.

TWIN INTELLIGENT PICTURE CONTROL

If the INTELLIGENT PICTURE switch is set to ON, the tape played back is automatically refined. Proper adjustment depending on the tape being used enhances the tape condition to the best. You can get the most natural and refined picture during playback. With tapes in bad condition, noise will be reduced and the picture will be softer.
With tapes in good condition, picture sharpness and improved resolution will be obtained.
Intelligent picture control can also be used in recording. This is further explained in recording section (page 16).

ENCORE PLAYBACK

If the ENCORE button is pressed during playback, the VCR operates reverse speed search for 5 seconds and playback resumes automatically.

NEXT FUNCTION

This function allows you to pre-programme the next function to be performed by the VCR after rewind.

EXAMPLE: To play back the tape after rewind has been completed.

1. Press the REW button to rewind the tape.
2. During rewind, press the NEXT button and within 5 seconds press the PLAY button.

NOTE:
- If the button isn't pressed within 5 seconds after the NEXT button is pressed, NEXT function doesn't operate.
- After pressing the NEXT button, any of the following buttons can be programmed:
  - PLAY
  - REC
  - POWER
  - EJECT
  - INDEX SEARCH (+1)
  - COUNTER ZERO STOP
  - FF
- To release the NEXT function,press the NEXT button again.
- If two buttons are pressed after the NEXT button, the NEXT function is released and the last button functions.
- When EJECT is programmed as the NEXT function, the power will turn off after the tape has been ejected.

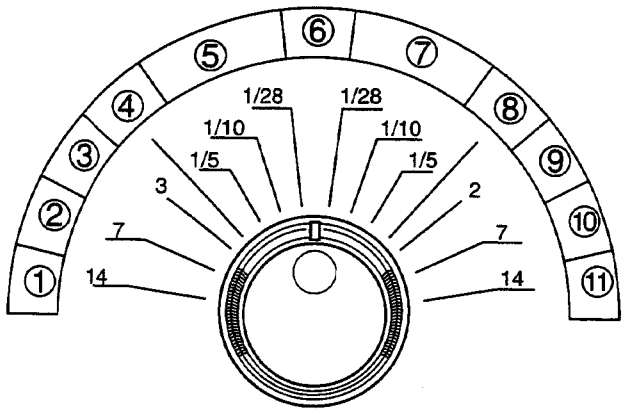
ENGLISH

SPECIAL PLAYBACK FACILITIES

ENGLISH

VARIABLE SPEED PLAYBACK USING JOG DIAL AND SHUTTLE RING

Use of the SHUTTLE ring changes the playback speed in steps. Use of the JOG dial precisely determines the starting position.



① Reverse high speed search
② Reverse speed search
③ Reverse fast playback (x3)
④ Reverse playback
⑤ Reverse slow-motion playback
⑥ Still frame
⑦ Slow-motion playback
⑧ Playback
⑨ Fast playback (x2)
⑩ Forward speed search
⑪ Forward high speed search

- Each number shows the speed multiplier when normal speed is 1.

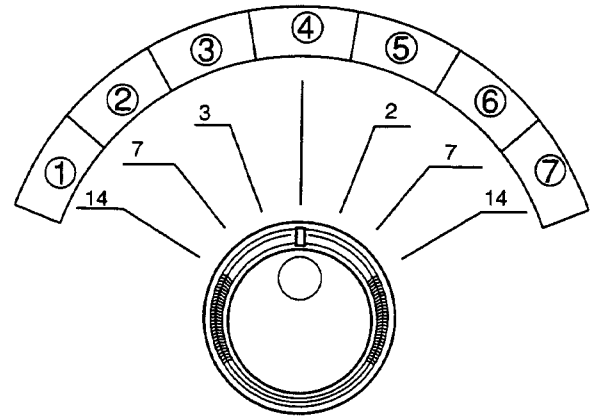
1. Press the JOG/SHUTTLE button to engage JOG/SHUTTLE mode during playback. (The JOG/SHUTTLE indicator will illuminate and playback speed will become the one according to the angle of the SHUTTLE ring.)
2. Turn the SHUTTLE ring to obtain desired playback speed. (The playback speed will change as the angle of the SHUTTLE ring changes.)
3. Turn the JOG dial when the SHUTTLE ring is in the centre position clockwise for forward frame advance or counter-clockwise for reverse one.
   - Each approximately 36-degree turn of the dial will feed one frame of the picture.
4. Pressing the JOG/SHUTTLE button again resumes the normal playback. (The JOG/SHUTTLE indicator will turn off.)

NOTE:

- The audio is muted while using the JOG dial and SHUTTLE ring.
- Still and Slow-motion playback is released after about 5 minutes to prevent damage to the tape.
- This VCR incorporates a system to automatically adjust tracking during special effects playback. However, some tracking noise may be present depending upon the recording.
- With tape recorded at LP: some noise may be present and colour may disappear.
- The JOG/SHUTTLE indicator will turn off automatically if you don't operate the JOG dial or the SHUTTLE ring within 1 minute after turning it on.

DIRECT SHUTTLE

Without pressing the JOG/SHUTTLE button, variable speed playback is useful.



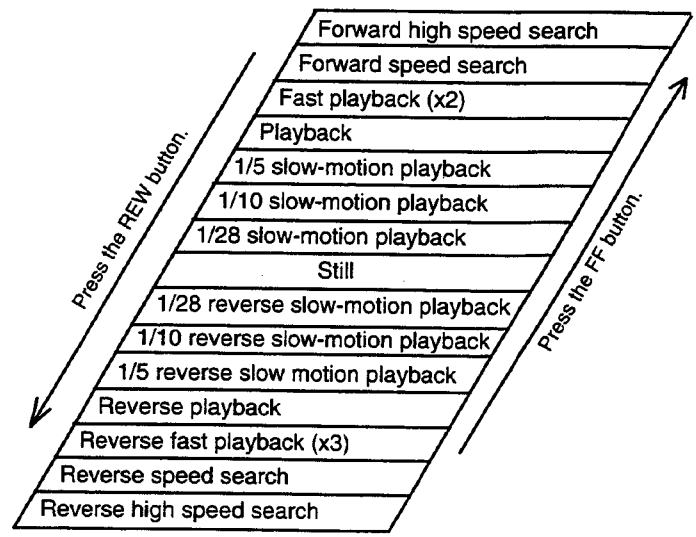
① Reverse high speed search
② Reverse speed search
③ Reverse fast playback (x3)
④ Playback
⑤ Fast playback (x2)
⑥ Forward speed search
⑦ Forward high speed search

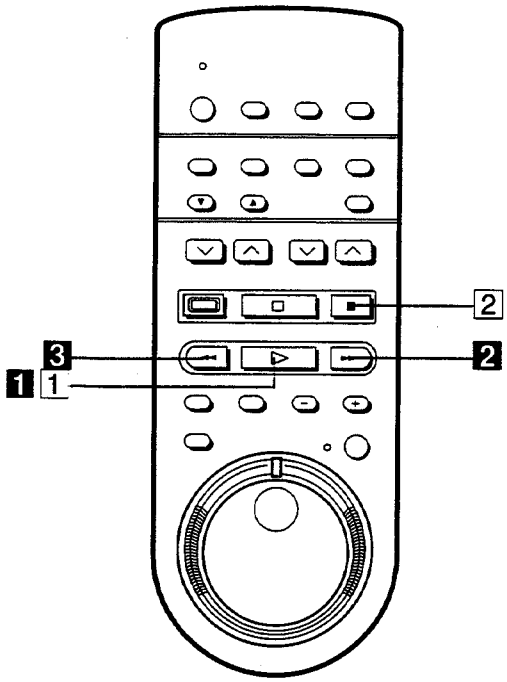
- Each number shows the speed multiplier when normal speed is 1.

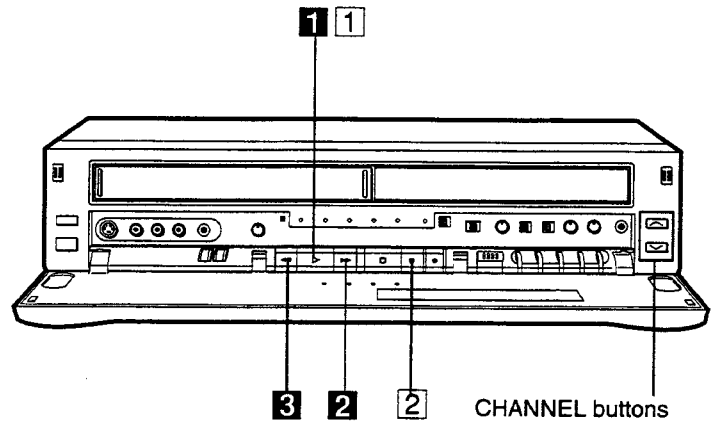
1. Press the PLAY button to begin playback.
2. Turn the SHUTTLE ring to obtain desired playback speed. (The playback speed will change as the angle of the SHUTTLE ring changes.)

VARIABLE SPEED PLAYBACK USING THE FF AND REW BUTTONS

In still frame, the FF button or the REW button on the VCR allows you to change the playback speed just like the SHUTTLE ring. Each press of the buttons changes the playback speed as indicated in the illustration below.







2WAY SPEED SEARCH

■ SPEED SEARCH
1 Press the PLAY button to begin playback.
2 Press and release the FF button to operate forward speed search.
Pressing the button again resumes normal playback.
3 Press and release the REW button to operate reverse speed search.
Pressing the button again resumes normal playback.

- QUICK LOOK
Speed search can be engaged also during fast forward or rewind. Forward speed search is engaged while the FF button is being pressed during fast forward. Reverse speed search is engaged while the REW button is being pressed during rewind.

NOTE:
- A few noise bars will appear on the picture during speed search operation.
- With tape recorded at LP: the picture may roll up or down depending on types of TV sets used.

■ HIGH SPEED SEARCH
1 Press the PLAY button to begin playback.
2 Press and hold the FF button for about one second before releasing for forward high speed search.
Pressing the button again resumes normal playback.
3 Press and hold the REW button for about one second before releasing for reverse high speed search.
Pressing the button again resumes normal playback.

NOTE:
- Due to the extremely high speeds (approximately 14 times as fast as normal playback) it is normal for the number of noise bars on the screen to increase relative to regular speed search mode.
- Depending on types of TV sets used, colour may disappear.
- Depending upon the recording, colour may disappear.
- With tape recorded at LP: the picture may roll up or down depending on types of TV sets used.

STILL FRAME

1 Press the PLAY button to begin playback.
2 Press the PAUSE button to obtain still frame.
Pressing the PAUSE button again resumes normal playback.

NOTE:
- After about 5 minutes in the still mode the VCR will automatically stop to prevent damage to the tape.
- With tape recorded at LP: noise may be present and colour may disappear.

STILL ADJUST

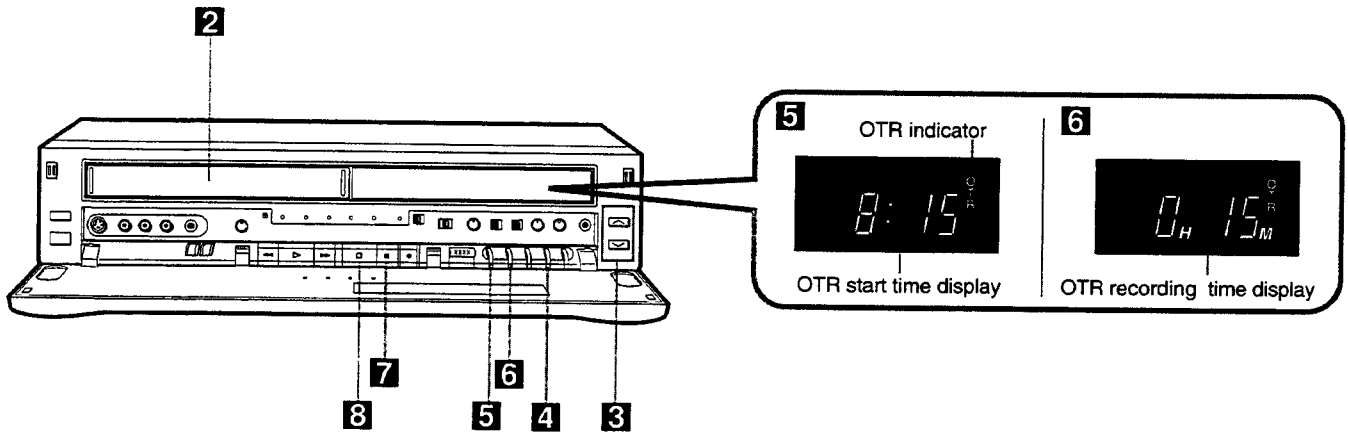
When watching a still frame, the picture may vibrate at the top and bottom. In this case, press the CHANNEL buttons on the VCR one at a time during still frame playback to reduce vibration.

NOTE:
- Side to side vibration cannot be corrected with this adjustment.

USING THE ONE TOUCH TIMER RECORDING

ONE TOUCH TIMER RECORDING (OTR) IS A SIMPLIFIED PROGRAMMABLE TIMER FUNCTION PROVIDING CONVENIENT UNATTENDED RECORDING. THE OTR FUNCTION HAS TWO OPERATION MODES:

1. Stand-by recording using the OTR START TIME button to set the time when recording begins and the OTR REC TIME button to set the duration of recording.
2. Immediate recording using the OTR REC TIME button to programme for recording in 15 minute timed intervals up to 4 hours or until tape end.



ENGLISH

1.STAND-BY RECORDING

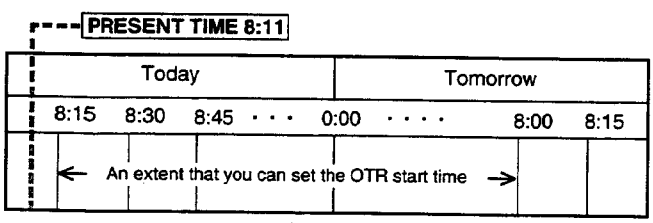
1 Confirm that the present time display is correct.
2 Load a cassette with the erasure prevention tab intact. (Make sure that there is sufficient tape to be recorded.)
3 Select the channel you want to record.
4 Select the desired tape speed SP or LP.
5 Press the OTR START TIME button to set the start time.

EXAMPLE: Present time is 8:11 AM.

	Press once	Press twice	Press three times	...
Start time	8:15	8:30	8:45	...

NOTE:

- The start time can be set at any 15 minute interval up to 8:00 AM on the next day.



(The OTR start time may be set at any 15 minute point within a 23-3/4 hour time period.)

6 Press the OTR REC TIME button to select the desired recording time.

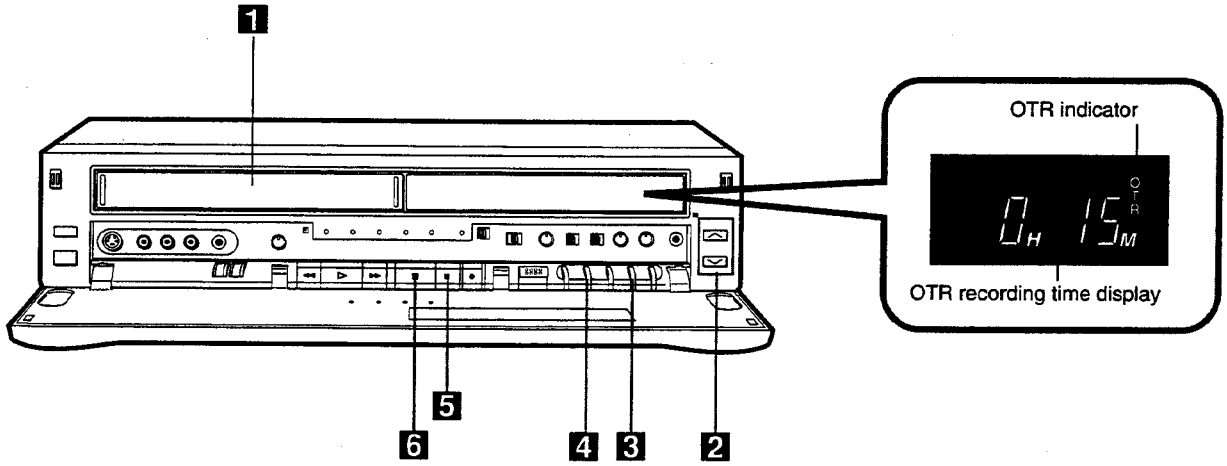
	Press once	Press twice	...	Press 16 times	Press 17 times	Press 18 times
Display	0H 15M	0H 30M	...	4H 00M	End	0H 00M
Record-ing time	15 min.	30 min.	...	4 hours	Until tape end	OTR recording cancels after 5 seconds.

When 30 seconds has passed after pressing the OTR REC TIME button, the power is turned off automatically.
When the setting time has come, the power is turned ON and recording begins.

7 To stop recording temporarily, press the PAUSE button. To restart recording, press the PAUSE button again.
8 To stop recording, press the STOP button. (OTR recording time display switches to the elapsed time counter.)

NOTE:

- If after pressing the OTR START TIME button no record time is inputted or 30 seconds pass, the VCR will power off. At the set start time recording will commence for 15 minutes.
- When OTR recording starts, the OTR recording start time display automatically switches to the remaining recording time.
- Stand-by OTR recording will not function with a cassette that has had its erasure prevention tab removed (see HINTS ON CASSETTE TAPES on page 15).
- If the start time of programmed recording comes during the OTR recording, the VCR switches to the programmed recording.



ENGLISH

2.IMMEDIATE RECORDING

1 Load a cassette with the erasure prevention tab intact. (Make sure that there is sufficient tape to be recorded.)
2 Select the channel you want to record.
3 Select the desired tape speed SP or LP.
4 Press the OTR REC TIME button. Recording will start and continue for the length of time indicated by the OTR recording time display (up to 4 hours or until tape end). The OTR indicator is illuminated.
The elapsed time counter is replaced by the OTR recording time display as shown below. During OTR recording the display indicates the OTR recording time remaining.

	Press once	Press twice	...	Press 16 times	Press 17 times	Press 18 times
Display	0H15M	0H30M	...	4H00M	End	0H00M
Recording time	15 min.	30 min.	...	4 hours	Until tape end	Recording stops after 5 seconds and POWER OFF.

5 To stop recording temporarily, press the PAUSE button. To restart recording, press the PAUSE button again.
6 To stop recording, press the STOP button. (OTR recording time display switches to the elapsed time counter.)

NOTE:

- OTR recording also stops when the OTR REC TIME button is pressed repeatedly until the time display shows "0H00M". Recording will stop after 5 seconds and VCR is turned off.
- Attempting immediate OTR recording on a cassette that has had its erasure prevention tab removed will result in the cassette status indicator (OTC) flashes for approximetely 4 seconds when the OTR REC TIME button is pressed (see HINTS ON CASSETTE TAPES on page 15).
- If tape runs out during OTR recording, the unit automatically switches to stop mode and power is turned off. Press the POWER button to resume the power.
- When OTR recording is completed (display indication 0H00M), power is switched off automatically. When another programme has been set in programme timer, the programmed recording indicator (⊡) is illuminated and programmed recording begins at the start time.
- OTR recording will not function during playback, fast forward and rewind.

CHANGING THE OTR RECORDING TIME OR START TIME

If you want to change the OTR recording time during recording: Press the OTR REC TIME button and select the desired recording time.

EXAMPLE: To extend recording time when there is 19 minutes OTR recording time indicated on the display.

Time remaining	Press once	Press twice
0H19M	0H34M	0H49M

To shorten the OTR recording time; repeat pressing the OTR REC TIME button until you reach the desired OTR recording time indicated on the display.

EXAMPLE: If you have started OTR recording for 4 hours, but want to shorten to 15 minutes.

	Now	Press once	Press twice	Press three times
Display	4H00M	End	0H00M	0H15M

If you want to change the OTR start time:
Press the OTR START TIME button repeatedly until the desired start time is indicated on the fluorescent display when the power is ON. If the power is turned off, switching the power back on will reset the OTR start and recording times, therefore the start and recording time will have to be set again.

AUTO OFF TIMER

Using auto off-timer, playback time can be programmed in 15 minute timed intervals up to 4 hours or until tape end. The VCR will automatically stop and turn off when the playback time is elapsed.

❶ Press the PLAY button to begin playback.
❷ Press the OTR REC TIME button to set the playback time. The elapsed time counter is replaced by the playback time display. During auto off-timer playback, the display indicates the remaining playback time.

HOW TO PROGRAMME FOR RECORDING

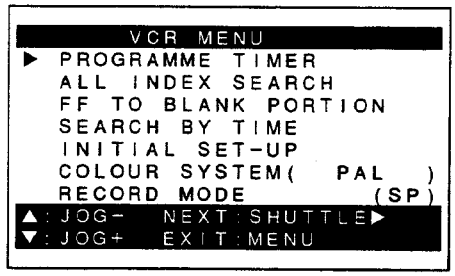
PROGRAMMES IN A ONE MONTH PERIOD CAN BE RECORDED AUTOMATICALLY. THERE ARE TWO PROCEDURES FOR PROGRAMMING:

1. Programming using the JOG dial and the SHUTTLE ring.
2. Programming using the O.K. PROG. button only

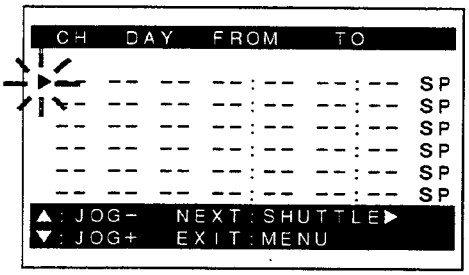
1. PROGRAMMING USING THE JOG DIAL AND THE SHUTTLE RING

Up to eight programmes can be programmed with this procedure.

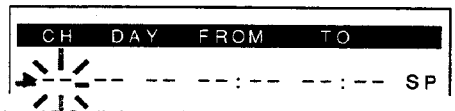
1 Load a cassette with the erasure prevention tab intact. (Make sure that there is sufficient tape to record on.)
2 Turn ON the TV and set it to the Video Channel.
3 Press the MENU button.
(The VCR MENU appears on the TV screen.)



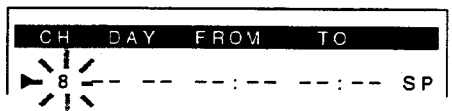
4 Turn the JOG dial to move the cursor until it is to the left of item PROGRAMME TIMER and turn the SHUTTLE ring right.
(The programme list display appears on the TV screen.)



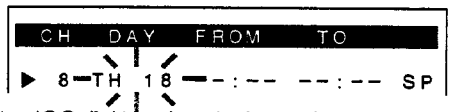
5 Turn the JOG dial to move the cursor until it is to the left of a vacant programme line and turn the SHUTTLE ring right.



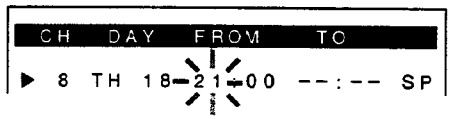
6 Turn the JOG dial to select the channel to be recorded. Turn the SHUTTLE ring right to enter the selection.



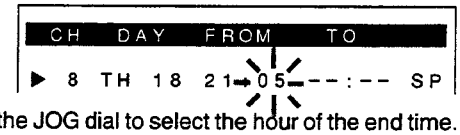
7 Turn the JOG dial to select the day. Turn the SHUTTLE ring right to enter the selection.



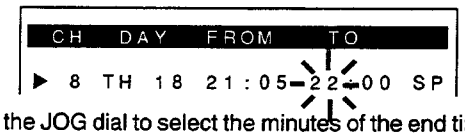
8 Turn the JOG dial to select the hour of the start time. Turn the SHUTTLE ring right to enter the selection.



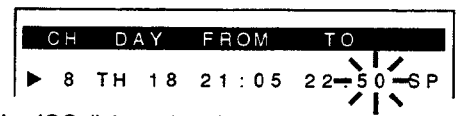
9 Turn the JOG dial to select the minutes of the start time. Turn the SHUTTLE ring right to enter the selection.



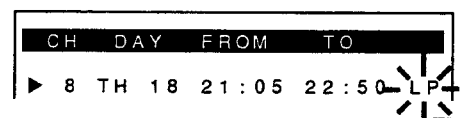
10 Turn the JOG dial to select the hour of the end time. Turn the SHUTTLE ring right to enter the selection.



11 Turn the JOG dial to select the minutes of the end time. Turn the SHUTTLE ring right to enter the selection.



12 Turn the JOG dial to select the tape speed you wish to record at. Turn the SHUTTLE ring right to enter the selection.



- To set additional programmes, repeat steps 5 – 12.

13 Press the POWER button and confirm that the programmed recording indicator (⏺) is illuminated on the fluorescent display. Now the VCR is engaged in stand-by mode for programmed recording.

OTHER FEATURES

- To watch TV whilst setting the programme, press the DATA ON SCREEN button. The blue screen will be replaced with the TV picture, overlaid with the programming details. In this case, the vacant programme lines do not appear. If no programmes have yet been set, then one blank programming line will appear. Press the DATA ON SCREEN button again, and the blue screen will reappear.
- If you forget the datails you have set or want to adjust an item, you can view your programme as follows. Turn on the TV. Turn on the VCR by pressing the POWER button on the remote control unit. Your VCR can now be used. To use the buttons on the VCR, the POWER button should be pressed twice. The first press switches off the programmed recording indicator (⏺), the second press switches on the VCR. Then follow steps 3 and 4. You can see your programme to adjust or just to check.
  To return to the programmed recording stand-by mode, you need only press the POWER button once either on the remote control unit or the VCR.
- You might want to use your VCR before the programmed recording starts, i.e. to check where on a tape you want to start recording. Press the POWER button on the remote control unit. Your VCR can now be used. To use the buttons on the VCR, the POWER button should be pressed twice.
  To return to the programmed recording stand-by mode, you need only press the POWER button once either on the remote control unit or the VCR.
- If the cursor is moved to select the seventh programme, the operation instructions are replaced by the seventh and eighth programme lines.

NOTE:

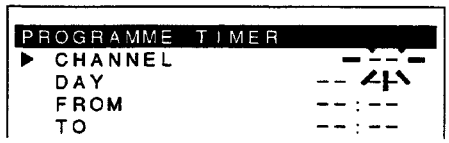
- Present time must be set before programmed recording is set.

ENGLISH

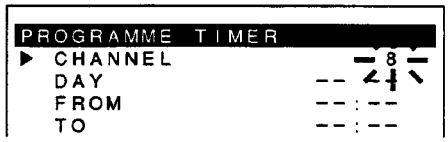
2. PROGRAMMING USING THE O.K. PROG. BUTTON (ONE KEY PROGRAMME)

Only one programme can be programmed with this procedure.

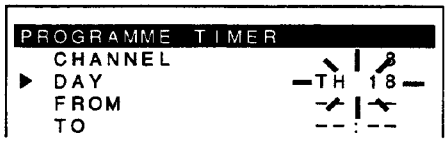
1 Load a cassette with the erasure prevention tab intact. (Make sure that there is sufficient tape to record on.)
2 Turn ON the TV and set it to the Video Channel.
3 Press the O.K. PROG. button.
(The PROGRAMME TIMER setting display appears on the TV screen.)



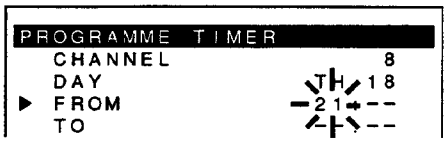
4 Press the O.K. PROG. button to select the channel to be recorded and wait for about 4 seconds.
(The flashing moves to the next setting item automatically.)



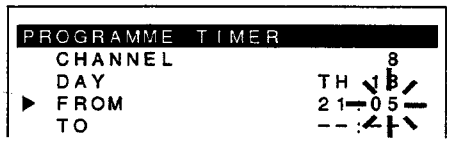
5 Press the O.K. PROG. button to select the date of the recording and wait for about 4 seconds.
(The flashing moves to the next setting item automatically.)



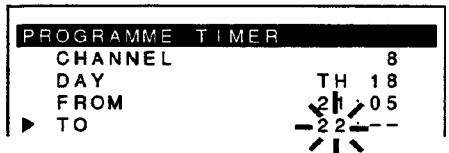
6 Press the O.K. PROG. button to select the hour of the start time and wait for about 4 seconds.
(The flashing moves to the next setting item automatically.)



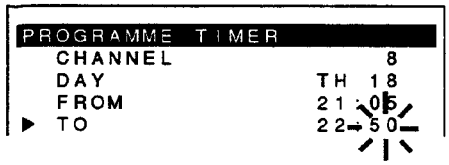
7 Press the O.K. PROG. button to select the minutes of the start time and wait for about 4 seconds.
(The flashing moves to the next setting item automatically.)



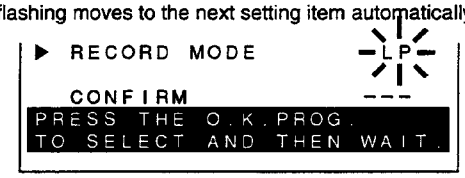
8 Press the O.K. PROG. button to select the hour of the end time and wait for about 4 seconds.
(The flashing moves to the next setting item automatically.)



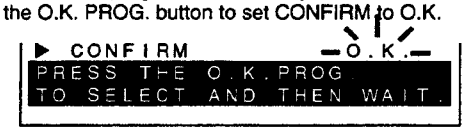
9 Press the O.K. PROG. button to select the minutes of the end time and wait for about 4 seconds.
(The flashing moves to the next setting item automatically.)



10 Press the O.K. PROG. button to select the tape speed you wish to record at and wait for about 4 seconds.
(The flashing moves to the next setting item automatically.)



11 Confirm that the programmed memory contents are correct and press the O.K. PROG. button to set CONFIRM to O.K.



- After about 4 seconds, the power is turned off and the programmed recording indicator (⏺) is illuminated on the fluorescent display. Now the VCR is engaged in stand-by mode for programmed recording.
- If you set CONFIRM to CANCEL, the whole screen will be deleted after about 4 seconds.

■ When you are comfortable with one key programming, you might want to speed up the procedure or make corrections to your programme.

- Instead of waiting for the cursor to automatically move to the next item, turn the SHUTTLE ring right (note the JOG/SHUTTLE function must be selected, i.e. the JOG/SHUTTLE indicator should be on), or press the PLAY button on the VCR.
- To move back to a previous item (for correction), turn the SHUTTLE ring left or press the STOP button on the VCR.
- To change the contents of an item, turn the JOG dial right to increase, or left to decrease the selection. Alternatively press the FF button on the VCR to increase, or REW button on the VCR to decrease the selection.

■ OTHER FEATURES

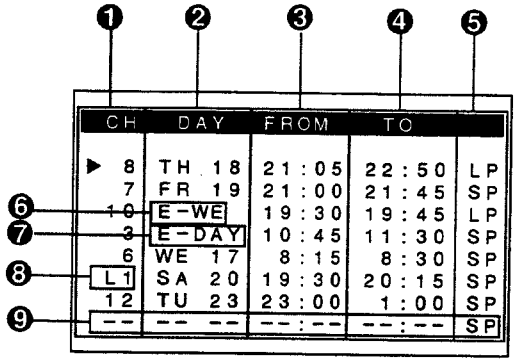
- If you are in one key programming mode and you change your mind, you can exit by pressing the MENU button on the remote control unit or the PAUSE button on the VCR.
- To watch TV whilst setting the programme, press the DATA ON SCREEN button. The blue screen will be replaced with the TV picture, overlaid with the programming details. Press the DATA ON SCREEN button again, and the blue screen will reappear.
- If you forget the details you have set or want to adjust an item, you can view your programme as follows. Turn on the TV. Turn on the VCR by pressing the POWER button on the remote control unit. Your VCR can now be used. To use the buttons on the VCR, the POWER button should be pressed twice. The first press switches off the programmed recording indicator (⏺), the second press switches on the VCR. Then press the O.K.PROG. button. You can see your programme to adjust or just to check.
To return to the programmed recording stand-by mode, you need only press the POWER button once either on the remote control unit or the VCR.
- You might want to use your VCR before the programmed recording starts, i.e.to check where on a tape you want to start recording. Press the POWER button on the remote control unit. Your VCR can now be used. To use the buttons on the VCR, the POWER button should be pressed twice.
To return to the programmed recording stand-by mode, you need only press the POWER button once either on the remote control unit or the VCR.

NOTE:

- The present time must be set before programmed recording is set.
- The one key programming system utilises the first programme available on the JOG dial and SHUTTLE ring system of programming.

ENGLISH

■ EXAMPLES OF PROGRAMMED RECORDING SETTINGS



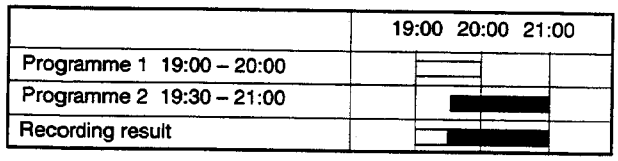
An on-screen display of the programmed recording memory is provided for convenience when programming and for review of the memory contents as desired.

❶ Channel number
❷ Day
❸ Recording start time
❹ Recording end time
❺ Tape speed
❻ [E-WE] indicates every week recording on Wednesday.
❼ [E-DAY] indicates everyday recording.
❽ [L1] or [L2] indicates input from external source.
❾ [– –] indicates that programme is vacant.

NOTE:

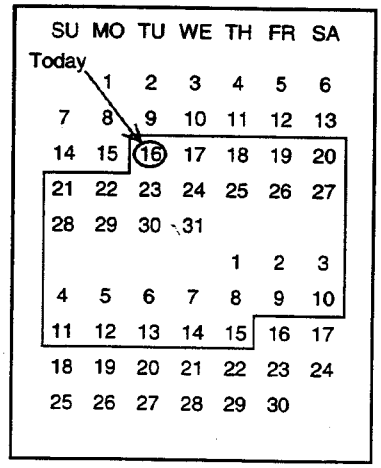
- With the exception of the everyday and every week feature, the programmed memory contents are erased following their execution.
- WHEN PROGRAMMING OVERLAPS IN THE SAME TIME SPAN
  If the start times of two programmes on the same day overlap, programmed recording begins at the earlier start time and then switches to the programme with the later start time.

EXAMPLE:



PROGRAMMING TV PROGRAMMES IN NEXT MONTH

The recording start day can be programmed up to 1 month ahead. If programming the recording start time before the present time, the recording starts at that time in the next month.
For example, when programming the start time to 18:00 on 16 at 19:00 on the same day, the recording starts at 18:00 in the next month.

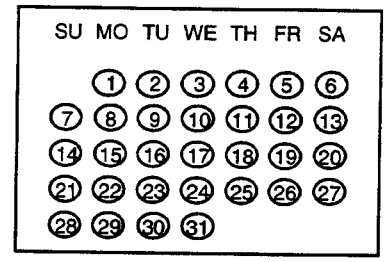


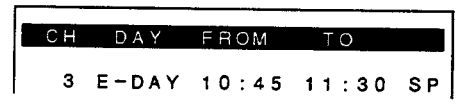
PROGRAMMING TV PROGRAMMES THAT END ON THE NEXT DAY

Simply set the start time to 23:00 on recording start day and the end time to 1:00.
There is no need to change the day.

PROGRAMMING SAME PROGRAMME EVERY DAY

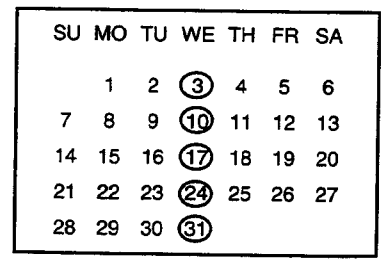
When setting the day, display [E-DAY].

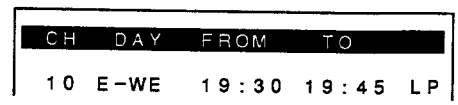




PROGRAMMING SAME PROGRAMME EVERY WEEK

When setting the day, display [E-] and the desired day of the week: SU(Sunday), MO(Monday), TU(Tuesday), WE(Wednesday), TH(Thursday), FR(Friday), SA(Saturday).
For example, [E-WE] indicates every Wednesday recording.





NOTE:

- If you want to skip one of the programmed recordings without re-entering the data, press the POWER button on the VCR. This turns programmed recording indicator (⏺) off with the VCR power off. Then press the POWER button twice when you want to resume programmed recording.
- Everyday and every week recording are not limited to 1 month and will continue until cancelled, providing there is sufficient tape.

PROGRAMMING FOR EXTERNAL INPUTS

When setting the channel, display [L1] or [L2].

ENGLISH

AUTO REC SPEED

The auto rec speed is a convenient feature to record a programme in SP mode as much as possible on a tape which is not sufficient for the programme to be recorded wholly in SP mode. Recording starts in SP mode and automatically switches to LP mode at the appropriate time so that the programme can be recorded until its end.

To use the auto rec speed:

- Confirm that the TAPE LENGTH is set to the appropriate position according to the tape used (see page 29).
- Select the first programme line in step 5 on page 25.
- Set the recording end time to the time a few minutes after the programme actually ends just in case in step 10 and 11 on page 25.
- Set the tape speed to AT in step 12 on page 25.

NOTE:

- A programme cannot be recorded until its end when the tape is not sufficient even for total LP recording.

WARNING DISPLAY SYSTEM

If you set your VCR to stand-by mode for programmed recording, there are two problems which your VCR will indicate to you.

1. If you have forgotten to install a tape .
2. If a tape with the erasure prevention tab removed is loaded.

When you press the POWER button, which switches the VCR to stand-by mode for programmed recording, the VCR checks items 1 and 2. If either condition is found, the programmed recording indicator (⏲) and the cassette status indicator (📼) will flash. In such a case, proceed as follows.

1. Press the POWER button.
   (The programmed recording indicator (⏲) will turned off.)
2. Load a cassette with the erasure prevention tab intact.
3. Press the POWER button and confirm that the programmed recording indicator (⏲) is illuminated.

NOTE:

- The programmed recording indicator (⏲) will flash for approximately 1 minute and then illuminate when all programmed recording is completed. If you want to use the VCR, press the POWER button on the remote control unit once (or the POWER button on the VCR twice).
- If the tape runs out during programmed recording, the programmed recording indicator (⏲) and the cassette status indicator (📼) begin flashing. The programmed recording settings for the partially recorded programme lines are erased.

CHANGING THE PROGRAMMED RECORDING SETTINGS

The programmed recording settings may be changed by using the following procedure.

1. Press the POWER button on the remote control unit once (or the POWER button on the VCR twice) and follow steps 2 – 4 (page 25).
2. Select the programme to be changed.
3. Select the setting items to be changed using the SHUTTLE ring and then change the contents using the JOG dial.
   - Turn the SHUTTLE ring right for forward shifting of setting position (flashing) and turn the SHUTTLE ring left for reverse shifting.
4. Press the POWER button and confirm that the programmed recording indicator (⏲) is illuminated.

NOTE:

- Changing the programmed contents is not possible after programmed recording has started.

ERASING THE PROGRAMMED RECORDING SETTINGS

1. Press the POWER button on the remote control unit once (or the POWER button on the VCR twice) and follow steps 2 – 4 (page 25).
2. Select the programme line to be erased using the JOG dial and turn the SHUTTLE ring right.
3. Turn the SHUTTLE ring left.

NOTE:

- Only the selected programme line is erased. All other programme lines remain unchanged.
- To erase the programmed contents after programmed recording has started, press the POWER button on the VCR. The programmed recording indicator (⏲) will turn off.

TIMER RESET BUTTON

In the event the fluorescent display shows an unusual indication the TIMER RESET button may be used to erase the present time display and all programmed recording instructions.

1. Press the TIMER RESET button using a pencil or ballpoint pen.
   The power will be turned off and the [-:- -] display will appear.
2. Press the POWER button to resume the power.
3. Select the desired language.
4. Set the present time and day.
5. Reset the programmed recording instructions.

MEMORY BACK UP IN CASE OF POWER FAILURE

THE MEMORY BACK UP PREVENTS LOSS OF THE PRESENT TIME AND PROGRAMMED RECORDING INSTRUCTIONS IN THE EVENT OF A POWER FAILURE LASTING UP TO 30 MINUTES.

The memory back up is automatically recharged and will be fully charged provided the mains lead has been plugged in for at least 1 hour. In the event of loss of power and depletion of the memory back up all programmed recording settings and time display will be lost. This is shown by [-:- -] time display upon resumption of power.

NOTE:

- If there has been a power failure during programmed recording or OTR recording, recording will stop at that point and restart on resumption of power.
- In the event of a power failure, the power will be turned off and will not return on resumption of power. To reactivate, press the POWER button to ON.

IMPORTANT

If a recording event has been programmed, your VCR will automatically go into stand-by for recording after shutting off. The programmed recording indicator (⏲) on the fluorescent display comes on, indicating your VCR is ready for programmed recording.

Since any programmed event will record over the next section of tape it is important to remember that your VCR automatically shuts off in the following situations:

— OTR recording,
— Auto off timer,
— NEXT function pressing the POWER button.

Your VCR will not record over any tape that has the erasure prevention tab removed (see HINTS ON CASSETTE TAPES on page 15). All rental movies have this tab removed so that they are safe from being accidentally erased.

ENGLISH

ELAPSED TIME COUNTER

THIS VCR INCORPORATES AN ELAPSED TIME COUNTER WHICH SHOWS TAPE RUN TIME IN HOURS, MINUTES AND SECONDS. SINCE THE COUNTER WORKS BY DETECTING A CONTROL SIGNAL, ACCURATE TIME DISPLAY IS MAINTAINED EVEN THROUGH FAST FORWARD OR REWIND OPERATIONS.

ELAPSED TIME COUNTER

Displays tape run time in hours, minutes and seconds.

EXAMPLE:
Tape has been running for 1 hour, 30 minutes and 15 seconds.

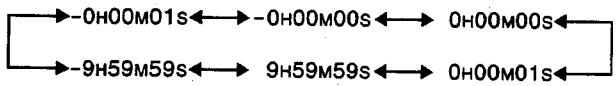
Tape was rewound 15 minutes and 45 seconds past 0H00M00s.

Minus Indicator

■ Pressing the COUNTER RESET button resets the elapsed time counter to 0H00M00s.

NOTE:

- The elapsed time counter works by detecting the control signal on recorded tapes. It will therefore not function with tapes that have not yet been recorded. It will, however, while recording new tapes.
- The elapsed time counter displays the time as follows:



- The elapsed time counter display is reset to 0H00M00s when the cassette tape is inserted.

COUNTER ZERO STOP

Press the COUNTER ZERO STOP button on the remote control unit, and the VCR will fast forward or rewind the tape and stop automatically when 0H00M00s is reached.

NOTE:

- The tape may not fast forward or rewind exactly to 0H00M00s.

PRESENT TIME DISPLAY

The present time display indicates present time and day. When the power is off, the present time display is on. To turn on the present time display when the power is on, press the DATA ON SCREEN button twice. The counter display will be replaced by the present time display. To turn off the present time display, press the DATA ON SCREEN button once.

REMAINING TIME DISPLAY

The remaining time display indicates in hours and minutes the time remaining until the end of the tape in all operating modes including special effects. It is calibrated for all standard tape lengths.

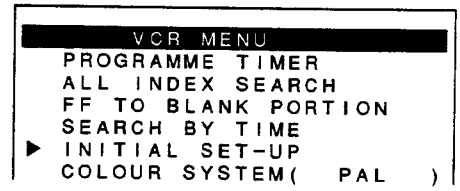
1. Set the TAPE LENGTH of the INITIAL SET-UP menu to the appropriate position. (See TAPE LENGTH below.)
2. Press the DATA ON SCREEN button once.
   (The counter display is replaced by the remaining time display.)

3. To turn off the remaining time display, press the DATA ON SCREEN button twice.

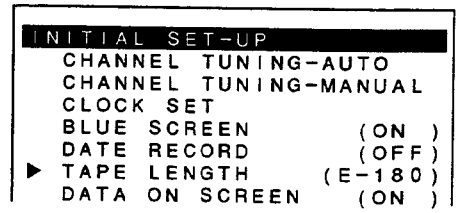
■ TAPE LENGTH

For the remaining time display to indicate the correct remaining time, the TAPE LENGTH must be set to the appropriate position.

1. Press the MENU button.
   (The VCR MENU appears on the TV screen.)
2. Turn the JOG dial to move the cursor until it is to the left of item INITIAL SET-UP.



3. Turn the SHUTTLE ring right.
   (The INITIAL SET-UP menu appears on the TV screen.)
4. Turn the JOG dial to move the cursor until it is to the left of item TAPE LENGTH.



5. Set the TAPE LENGTH to the appropriate position by turning the SHUTTLE ring.

E-180	E-30 SE-30	E-60 SE-60	E-120 SE-120	E-180 SE-180
E-240		E-240	SE-240	

6. Press the MENU button to exit the INITIAL SET-UP menu.

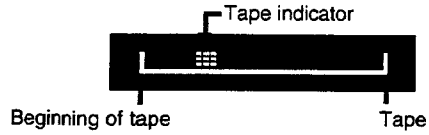
NOTE:

- The remaining time display automatically appears during fast forward or rewind.
- Depending on the tapes to be used, it may take some time for the remaining time display to appear, or the remaining time displayed may not be correct.
- The remaining time display may not indicate the correct remaining time in the following conditions:
  — when the TAPE LENGTH is not set to the appropriate position.
  — when using an SE-260 or E-260 cassette tape.
  — when using an S-VHS C or VHS C cassette with a cassette adapter.
- The remaining time doesn't indicate when playing back an NTSC recorded tape.

ENGLISH

TIME GAUGE

During fast forward or rewind, the peak level meter is replaced by the gauge indicating an approximate tape position.



- With E-180 cassette tapes on SP mode, one graduation of the time gauge on the fluorescent display indicates about 18 minutes.
- If the TAPE LENGTH is changed after the time gauge is displayed, the tape indicator will disappear for a while until the correct tape position is indicated.
- The time gauge works by detecting control signals on recorded tape. It will therefore not function with tapes that have not yet been recorded.
- The time gauge isn't precisely displayed while the tape recorded in NTSC is fast forwarded or rewinded.

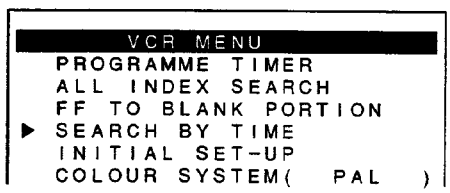
ELAPSED TIME SEARCH

This function gives you quick access to the desired point and starts playback automatically.
Elapsed time search has two methods of the operation.

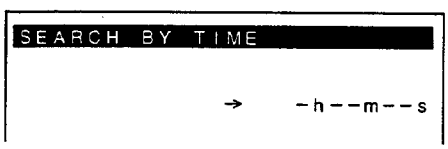
1. **Absolute time search**
   Absolute time search is a convenient feature to locate the desired point by specifying the time from the beginning of the tape.
2. **Relative time search**
   Relative time search is useful to locate the desired point by counter munber form the current position of the tape.

1. ABSOLUTE TIME SEARCH

1 Press the MENU button.
(The VCR MENU appears on the TV screen.)
2 Turn the JOG dial to move the cursor until it is to the left of item SEARCH BY TIME.

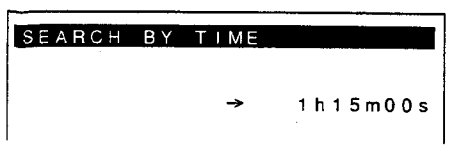


3 Turn the SHUTTLE ring right.
(The SEARCH BY TIME display appears on the TV screen.)

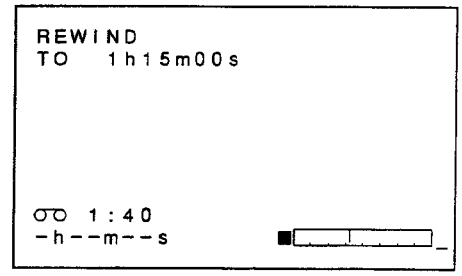


- If the counter has been reset, COUNTER ZERO STOP or ABSOLUTE TIME SEARCH has been operated after inserting the tape, the display switches to the relative time search display. In such a case, take out the cassette and load it again. Then repeat steps 1 – 3 again.

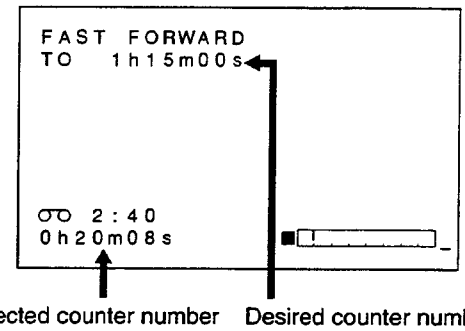
4 Set the desired elapsed time using the JOG dial.



5 Turn the SHUTTLE ring right.
The tape will rewind to the beginning of the tape first. The present counter number changes to - h -- m -- s display.

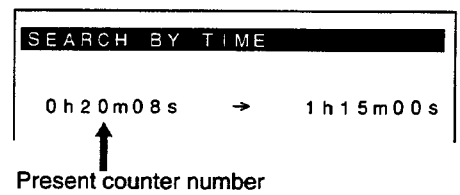


Then the counter number will reset to "0h00m00s" and the tape will fast forward to the specified time and start playback automatically.

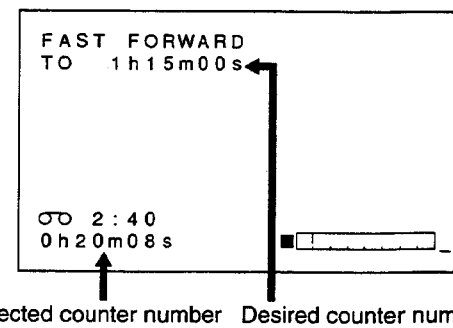


2.RELATIVE TIME SEARCH

1 Follow steps 1 – 3 on the left.
2 Set the desired elapsed time using the JOG dial.



3 Turn the SHUTTLE ring right.
The tape automatically winds to that point and playback begins.



NOTE:

- The tape may not be fast forwarded or rewound exactly to the desired position.
- If the selected time setting is not reached by the end of the tape, the elapsed time search will stop.

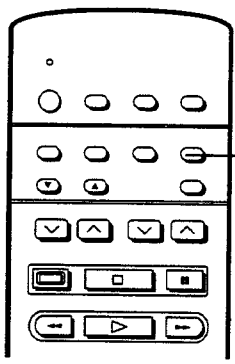
ENGLISH

INDEX SEARCH

THE INDEX SEARCH SYSTEM GIVES RAPID ACCESS (FORWARD OR REVERSE) TO THE BEGINNING OF ANY PROGRAMME HAVING AN INDEX SIGNAL OR TO POINTS ON THE TAPE WHERE INDEX SIGNALS HAVE BEEN MANUALLY RECORDED. PLAYBACK STARTS AUTOMATICALLY WHEN THE SELECTED INDEX SIGNAL IS REACHED.

RECORDING THE INDEX SIGNAL

Index indicator



A The index signal is automatically recorded when recording is activated from stop mode.
- After approximately 5 seconds, the index indicator (▽)will begin to flash. The index indicator (▽) flashes for approximately 5 seconds while the index signal is being recorded.

B The index signal may be recorded manually at any point during recording or playback by pressing the INDEX WRITE button on the remote control unit.
- The index indicator (▽) flashes for approximately 5 seconds while the index signal is being recorded.

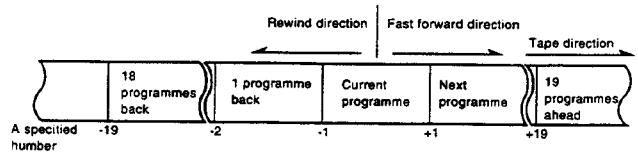
NOTE:
- No index signal is recorded when recording is resumed from the recording pause mode.
- To ensure correct operation, index signals must be recorded more than one minute apart.
- The index signal cannot be recorded during NTSC playback.

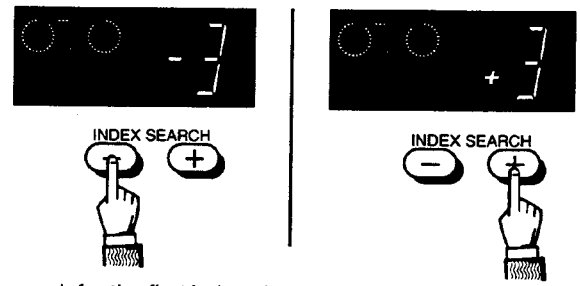
ERASING INDEX SIGNALS

1 Use index search to locate the index signal you wish to erase.
2 When the index signal has been located and normal playback begins,press the PAUSE button to obtain still frame .
3 Watching the elapsed time counter, rewind the tape approximately 20 seconds, and then press the PAUSE button to obtain still frame.
4 Press the PLAY button to start playback.
5 Press the INDEX ERASE button.
(The index indicator (▽)`flashes while the index signal is erased.)

USING INDEX SEARCH

This function makes it possible to skip a specified number of index points.





To search for the first index signal in the forward direction press the INDEX SEARCH + button once.
The index indicator (▽) illuminates on the front panel and the channel indicator display changes to an index search indicator displaying "+1".
When the first index signal is reached, the VCR will begin playback and the channel indicator will be restored.

To search past the first index signal press the INDEX SEARCH + button repeatedly, up to 19 times, until the desired index point is displayed on the index search indicator.

The indicator will count down until the selected index signal is reached at which point playback will commence and the channel indicator will be restored.

- For reverse index search press the INDEX SEARCH – button. The reverse index search may also be set to search for up to the 19th index signal.
- Index search can be interrupted by pressing either the STOP or PLAY button.

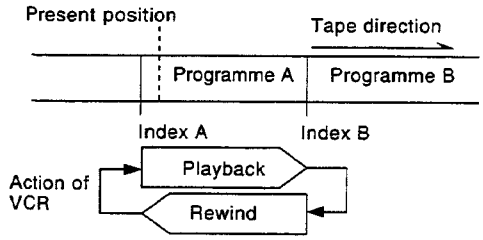
ENGLISH

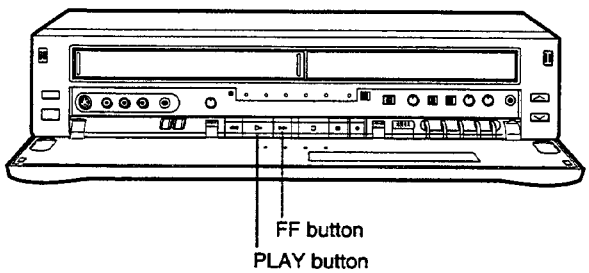
PLAYBACK USING INDEX SIGNALS

INDEX SIGNALS ALLOW SPECIAL PLAYBACK FEATURES INCLUDING INDEX REPEAT AND SKIP SEARCH.

INDEX REPEAT (AUTO INDEX REPEAT)

This function allows any segment of tape between 2 index signals to be repeatedly played back.



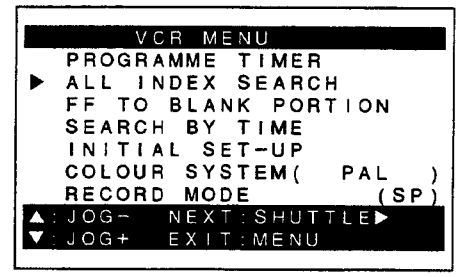


During playback, press the PLAY and FF buttons at the same time.
When the VCR encounters the next index signal on the tape (index B), playback stops. The VCR rewinds to the previous index signal (Index A) where playback resumes (programme A). This cycle repeats until the INDEX REPEAT mode is cancelled.

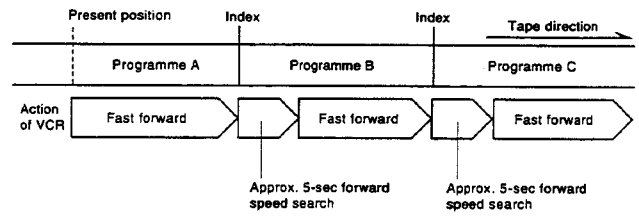
- To cancel the INDEX REPEAT mode, press the STOP button.
- If there is no index signal on the tape, the VCR will continue to the end of the tape, rewind, and then start again from the beginning.
- If the tape comes to a blank portion, the VCR will rewind to the previous index signal and then start again.

SKIP SEARCH (ALL INDEX SEARCH)

1. Press the MENU button.
   (The VCR MENU appears on the TV screen.)
2. Turn the JOG dial to move the cursor until it is to the left of item ALL INDEX SEARCH.



3. Turn the SHUTTLE ring right.
   The VCR will now fast forward through the tape. When an index signal is encountered, the VCR goes into forward speed search mode (with picture) for approximately 5 seconds, allowing the video content of the tape to be viewed. Press the PLAY button for normal playback. If no button is pressed, fast forward automatically resumes until the next index signal.

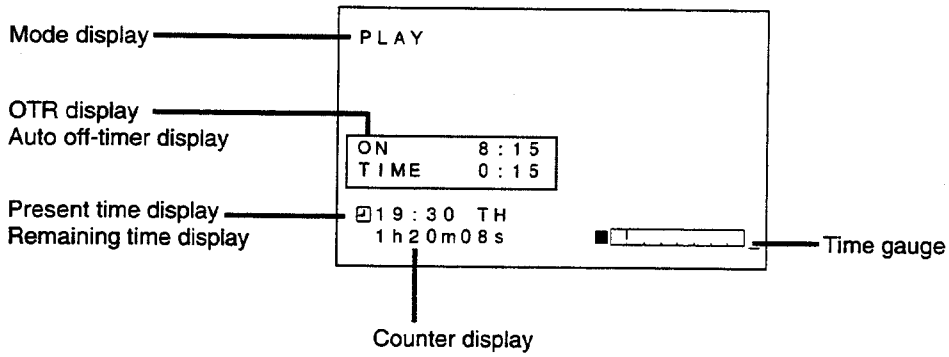


- When the REW button is pressed during forward skip search, the forward skip search changes to the reverse skip search.
- Press the STOP button to cancel skip search.
- For forward skip search to function properly the recorded index signals must be more than 3 minutes of playback time apart.
- For reverse skip search to function properly the recorded index signals must be more than 10 minutes of playback time apart.

ENGLISH

ON-SCREEN OPERATION DATA

ON SCREEN DISPLAY PROVIDES CONVENIENT VISUAL CONFIRMATION OF OPERATION MODE, OTR SETTING, AUTO OFF-TIMER SETTING, COUNTER, PRESENT TIME AND REMAINING TIME. NOT INDICATED WHEN WATCHING PROGRAMMES ON TV USING THE TV CHANNEL SELECTOR.



ENGLISH

MODE DISPLAY

Displays the operating status of the VCR when a function is selected or if the DATA ON SCREEN button is pressed.

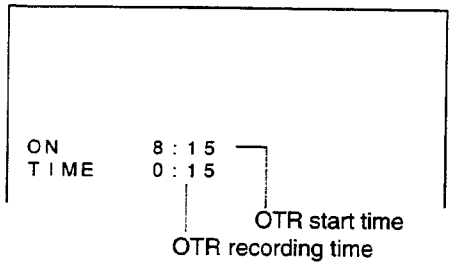
❶ CH 80m Ⓐ
❷ EXT L1
❸ CASSETTE IN
❹ REC SP Ⓑ
❺ INDEX WRITE
❻ INDEX ERASE
❼ PAUSE SP Ⓒ
❽ PLAY
❾ FF
❿ REW
⓫ STOP
⓬ EJECT
⓭ CNTR 0 STOP
⓮ SEARCH +19 ⒹⒺ
⓯ REPEAT PLAY
⓰ REPEAT REW
⓱ F SEARCH ALL
⓲ R SEARCH ALL
⓳ BLANK SEARCH
⓴ →OFF
㉑ AUDIO DUB
㉒ INSERT
㉓ INSERT PAUSE
㉔ AV DUB
㉕ AV DUB PAUSE

❶ Press the CHANNEL button
Ⓐ Illuminates to indicate that the colour system is set to MESECAM.
❷ Press the CHANNEL button for input from external source
❸ Load a cassette
❹ Begin recording
Ⓑ Tape speed
❺ During recording of index signal
❻ During erasing of index signal
❼ During record pause
Ⓒ Tape speed
❽ Begin playback
❾ Begin fast forward
❿ Begin rewind
⓫ Press the STOP button
⓬ Press the EJECT button
⓭ During counter zero stop
⓮ During 19-step index search
Ⓓ Direction (+ = forward, – = reverse)
Ⓔ Specified number
⓯ Begin repeat playback
⓰ During rewind of repeat playback
⓱ During forward skip search
⓲ During reverse skip search
⓳ During blank search
⓴ Use NEXT function
(For example, power off after rewind)
㉑ Begin audio dubbing
㉒ Begin insert editing
㉓ During insert editing standby mode
㉔ Begin audio/video dubbing
㉕ During audio/video dubbing standby mode

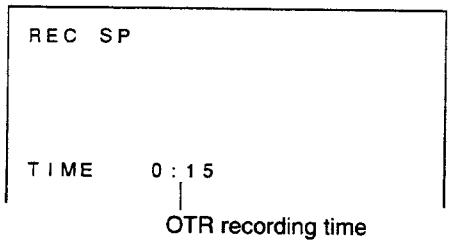
OTR DISPLAY

Displayed for about 15 seconds after pressing the OTR START TIME button or OTR REC TIME button.

- In case of stand-by recording

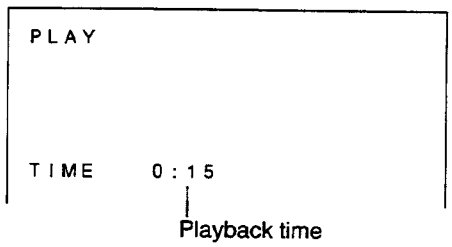


- In case of immediate recording



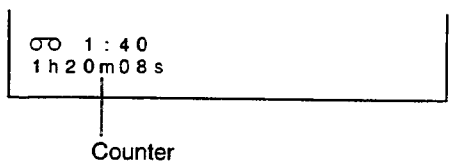
AUTO OFF-TIMER DISPLAY

Displayed for about 15 seconds after pressing the OTR REC TIME button for auto off-timer playback.



COUNTER DISPLAY

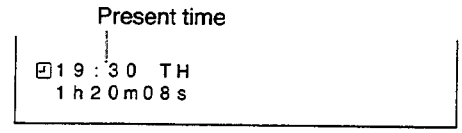
Displayed during fast forward or rewind or when the DATA ON SCREEN button is pressed once.



- To turn the display off, press the DATA ON SCREEN button twice.

PRESENT TIME DISPLAY

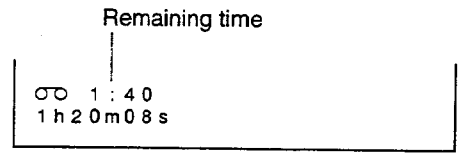
Displayed when the DATA ON SCREEN button is pressed twice.



- To turn the display off, press the DATA ON SCREEN button once.

REMAINING TIME DISPLAY

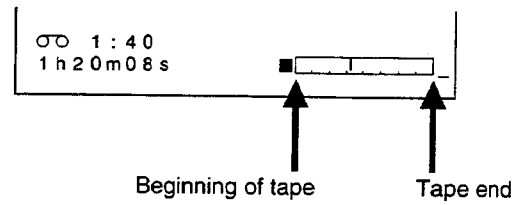
Displayed during fast forward or rewind or when the DATA ON SCREEN button is pressed once.



- To turn the display off, press the DATA ON SCREEN button twice.

TIME GAUGE

Displayed during fast forward or rewind.



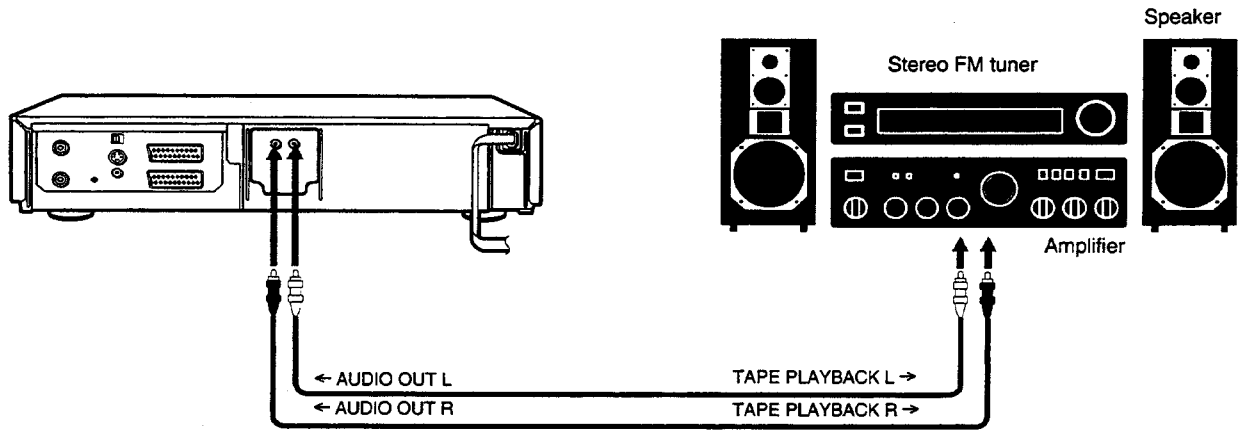
- To turn off the time gauge during fast forward or rewind, press the DATA ON SCREEN button twice.

NOTE:

- When pressing the DATA ON SCREEN button during playback, the counter display, present time display and remaining time display on the screen appear for approximately 4 seconds.
- A slight vibration of the mode display at the top and bottom of the picture is normal.
- The letters of display may be in colour, depending on the pictures on the screen and the type of TV connected.
- The positions of counter display may be shifted during speed search.
- If the TAPE LENGTH is changed after the time gauge is displayed, the tape indicator will disappear for a while until the correct tape position is indicated.
- The time gauge works by detecting the control signal on recorded tapes. It will therefore not function with tapes that have not yet been recorded.
- With E-180 cassette tapes on SP mode, one graduation of the time gauge on the on-screen display indicates about 23 minutes.
- The ON-SCREEN OPERATION DATA are not indicated when the DATA ON SCREEN on the INITIAL SET-UP menu is set to OFF.
- Any ON-SCREEN OPERATION DATA are not indicated when playing back an NTSC recorded tape.

ENGLISH

RECORDING AND PLAYBACK WITH NICAM PROGRAMME



ENGLISH

CONNECTION WITH STEREO SYSTEM

COMBINE THIS VCR WITH YOUR AUDIO SYSTEM FOR MORE LISTENING ENJOYMENT WHEN VIEWING VIDEO TAPES.
You can enjoy stereo sound, as long as a tape has been recorded in Hi-Fi stereo, when you connect the audio system.

NICAM SYSTEM

The NICAM system is a ground-based TV service for digital stereo sound. To receive NICAM broadcasts, this VCR incorporates a NICAM decoder. When a stereo, dual-soundtrack or monaural NICAM programme is being received, the indicators light to inform you of the type of broadcasts.

	Indicator	Normal sound track	Hi-Fi sound track	
			L	R
Regular		Standard audio	Standard audio	Standard audio
Regular + STEREO		Standard audio	Stereo (L)	Stereo (R)
Regular + DUAL		Standard audio	A	B
Regular + MONO		Standard audio	A	A

RECORDING

THE Hi-Fi VHS SYSTEM IN COMBINATION WITH THE BUILT IN NICAM TUNER AND TWO AUDIO CHANNELS CAN MAKE STEREO OR DUAL RECORDINGS. IN ADDITION, STANDARD AUDIO SIGNALS CAN BE RECORDED ONTO NORMAL SOUND TRACK USING THE STANDARD VHS RECORDING SYSTEM.
The operation procedure is exactly the same as for normal recording(see page 16).

NOTE:
- If NICAM broadcast signals are weak, sound quality deteriorates drastically. With extremely weak signals, the indicator goes off and the FM soundtrack is recorded on the Hi-Fi track.
- It is not necessary to select any position of the MONITOR button, as the correct sound system is selected automatically according to the NICAM broadcast signal.

PLAYBACK (OR MONITORING DURING RECORDING)

The operation procedure is exactly the same as for normal playback (see page 19). Select the audio channel you wish to hear.

■ MONITOR BUTTON

The audio channel(s) for playback are selected with the MONITOR button.
When the MONITOR button is pressed, the audio tracks will be switched on in the order of STEREO → L → R → NORMAL → STEREO → ....

	Indicator	VHS Hi-Fi RECORDED VIDEO TAPE PLAYED BACK THROUGH	
		• Stereo TV • Stereo Monitor • Stereo System	• Monaural TV • Stereo TV's aerial (RF) input
STEREO		Stereo	Monaural
L		Left channel	Left channel
R		Right channel	Right channel
NORMAL		Monaural (Normal sound track)	Monaural (Normal sound track)

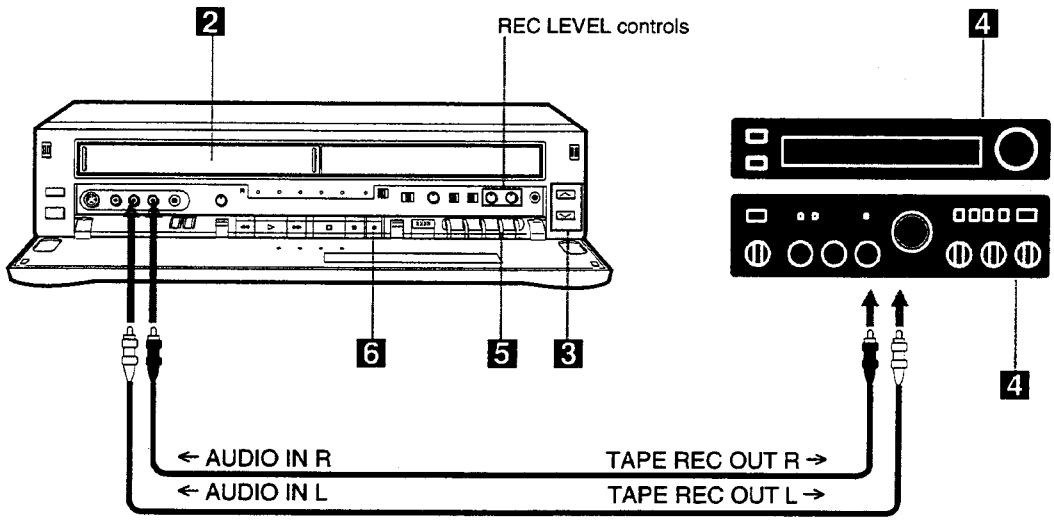
NOTE:
- When connected to a TV receiver with stereo speakers to the VCR RF OUT terminal, stereo prerecorded tapes will be played back monaurally, and DUAL programme prerecorded tapes will be heard "CH A" and "CH B" sound together.
  For stereo and 2CH playback, the two audio channel TV should be connected to the VCR EURO AV socket or the AUDIO OUT (L,R) sockets.
- When tapes with DUAL programme recorded on this unit are played back on conventional VCRs (including stereo VCRs), the normal sound in the above table will be played back.
- When tracking adjustment is performed, the VCR may change over from the Hi-Fi sound track to the normal sound track (noise or breaks are heard), but this is not a malfunction.
- When tapes recorded with a conventional stereo VCR are played back on this unit, stereo recordings will be heard as monaural sound, and in case of 2CH recording, "CH A" and "CH B" sound will be heard together.

■ HEADPHONES LISTENING AND MONITORING

Stereo headphones plugged into the PHONES jack can be used for listening during playback or monitoring during recording. The signal present at the PHONES jack is selected with the MONITOR button. Volume is adjusted with the PHONES LEVEL control.

FOR USE AS A Hi-Fi AUDIO RECORDER

THIS VCR MAY BE USED AS A TOP QUALITY AUDIO RECORDER.



1. Connect the equipment as shown.
2. Load a cassette with the erasure prevention tab intact.
3. Press the CHANNEL buttons until [L2] appears on the fluorescent display for input from external source.
4. Set your stereo amplifier input selector to the FM tuner position and tune the FM stereo tuner.
5. Press the TAPE SPEED button to the desired tape speed SP or LP.
6. Press the REC button to start the recording.

NOTE:

- Attempting to record on a cassette that has had its erasure prevention tab removed will result in the cassette status indicator (⊙⊙) flashes for approximately 4 seconds when the REC button is pressed (see HINTS ON CASSETTE TAPES on page 15).

RECORD LEVEL ADJUSTMENT

You can adjust the Hi-Fi audio record level manually.
Rotate the REC LEVEL L and R controls on your VCR to adjust the record level so that the red bar indicators are illuminated occasionally.

NOTE:

- When adjusting the REC LEVEL controls, the MONITOR button must be set to STEREO.
- The REC LEVEL adjustment does not effect the normal sound track.
- Return the REC LEVEL controls to the centre position when your recording is complete.

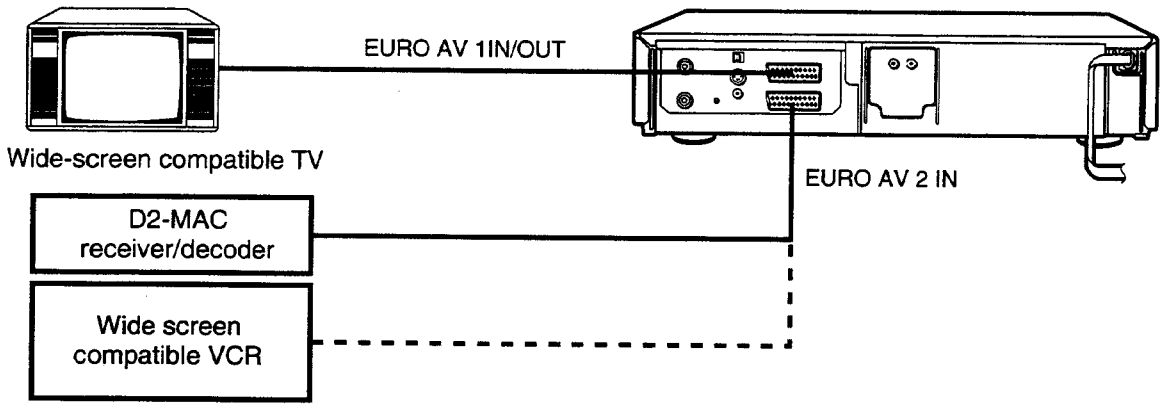
ENGLISH

WIDE-SCREEN VIEWING AND RECORDING

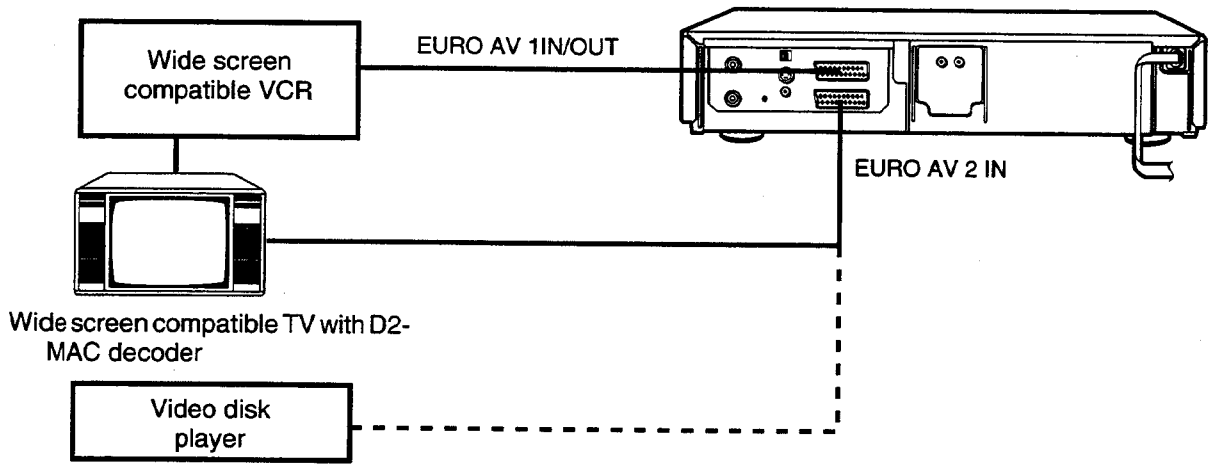
If your TV is compatible with the 16:9 wide-screen format, please read this instruction to take full advantage of this VCR's 16:9 recording. Available sources include D2-MAC broadcasts, video discs and VCR.

ENGLISH

EXAMPLE 1



EXAMPLE 2



16:9 REC SWITCH

Set this switch to AUTO. Then your VCR will automatically record wide screen programmes as "wide" and normal programmes as "normal".
Whichever position of this switch is selected, your VCR will automatically:

- Play back wide-screen programmes as "wide" and normal programmes as "normal".
- Control the TV (if equipped with Auto Aspect Ratio Switching function) so that both types of programmes are displayed with the right proportions.

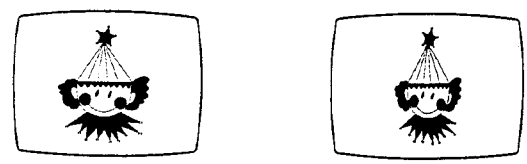
NOTE:

- For the VCR to CONTROL the TV, it must be connected to the TV via the EURO AV 1 IN/OUT socket (or S-VIDEO OUT socket, if TV is equipped with auto Aspect Ratio switching in S-VIDEO IN socket).
- For the VCR to record in the correct mode automatically, the signal must be applied to either the EURO AV 1 IN/OUT or EURO AV 2 IN socket (or S-VIDEO OUT socket, if TV is equipped with auto Aspect Ratio switching in S-VIDEO IN socket).
- When recording wide-screen programmes via the VIDEO IN socket, for example in tape-to-tape dubbing, set the 16:9 REC switch to MANUAL.
- When playing back wide-screen programmes via the S-VIDEO OUT socket, switch the TV to the 16:9 mode manually.

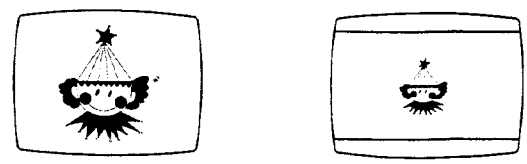
DISPLAY ON THE TV SCREEN

Normal programmes **Wide-screen programmes**

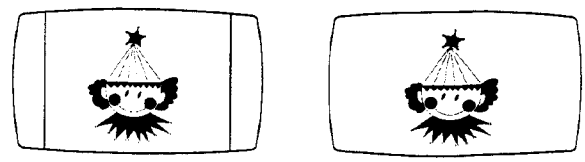
Normal television (4:3 aspect ratio)



Wide-compatible normal television (4:3 aspect ratio)



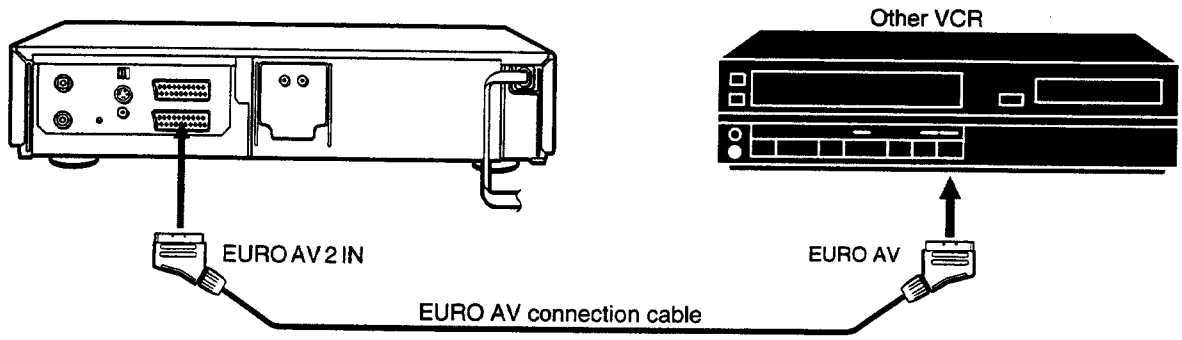
Wide-screen television (16:9 aspect ratio)



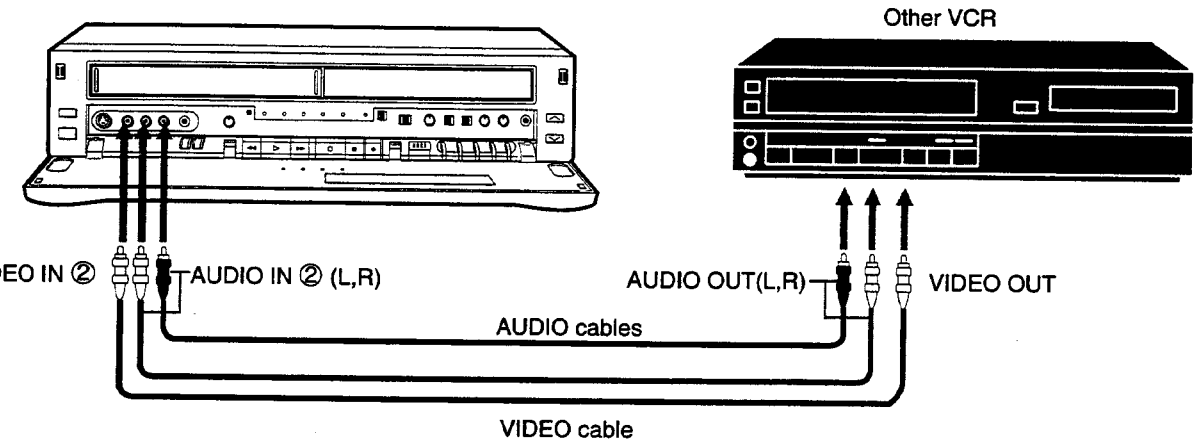
DUBBING

TO DUB A TAPE, YOU WILL NEED TWO VIDEO CASSETTE RECORDERS;ONE IS TO PLAYBACK THE ORIGINAL TAPE AND THE OTHER IS TO RECORD.

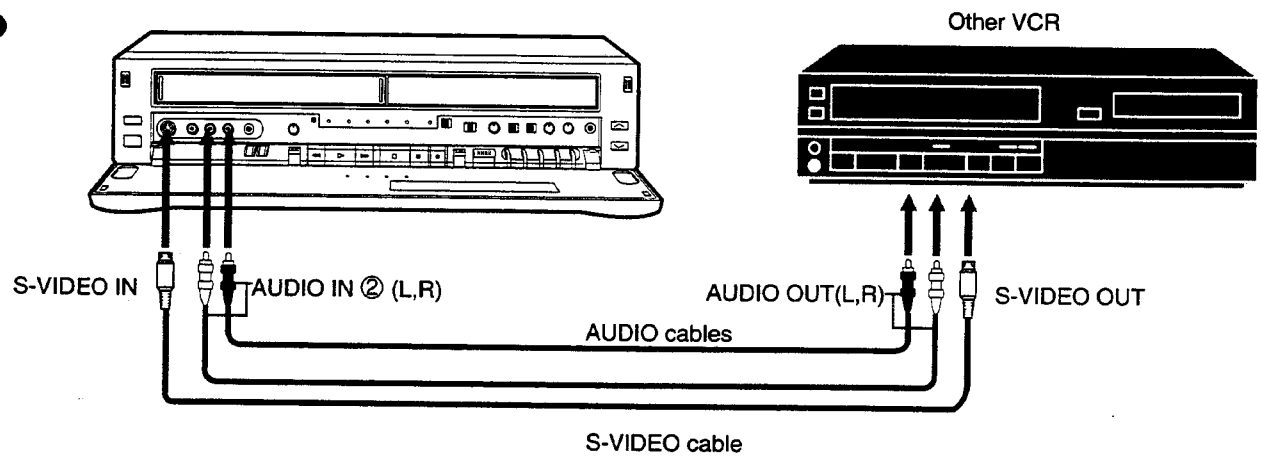
❶



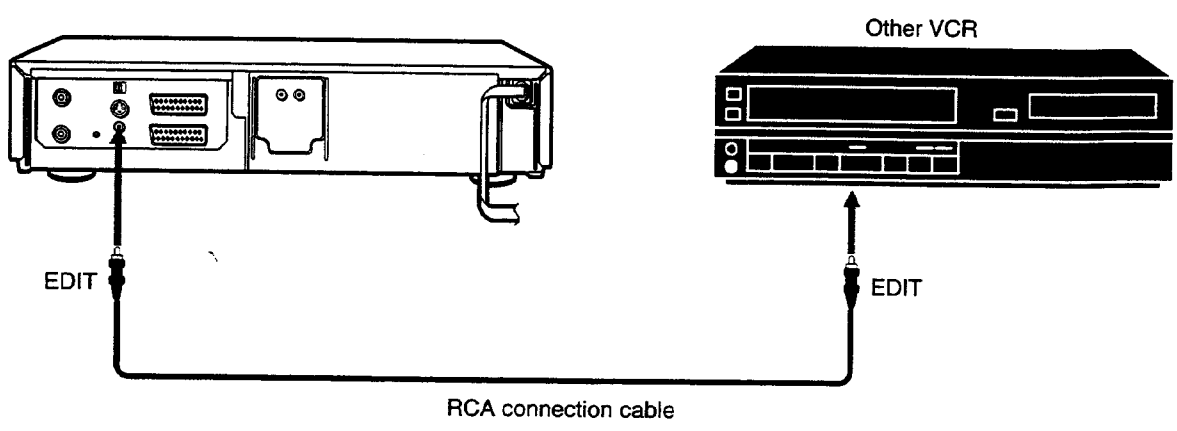
❷



❸



❹



ENGLISH

CONNECTION

When another VCR is used as source.

❶ Connection to another VCR having the EURO AV socket (SCART or EURO type connector).
❷ Connection to another VCR having the RCA type socket.
❸ Connection to another VCR having the S-VIDEO socket.

DUBBING

When another VCR is used as source.

1 Press the CHANNEL buttons until [L1] or [L2] appears on the fluorescent display for input from external source.
2 Begin playback on the other VCR.
3 Begin recording on your new VCR.

NOTE:

- Be sure the EURO AV INPUT SELECT switch is appropriate position when the other VCR has been connected by the EURO AV connection cable and another VCR is used as source.
- Be sure the VCR used as source is set to the tuner position when the other VCR has been connected by the EURO AV connection cable.
- If a Hi-Fi tape is copied from your new VCR, then ensure Hi-Fi playback by pressing the MONITOR button until the L and R indicators are illuminated.
- When another monaural VCR is used as a source, connect its AUDIO OUT socket to the AUDIO IN ② L (left channel) socket of your new VCR. In this case, the audio signal from another monaural VCR can be recorded on the both L and R Hi-Fi sound tracks.
- When both the S-VIDEO IN and VIDEO IN terminals are connected, dubbing is only done with the signal from the S-VIDEO IN terminal.
- When your new VCR is used as source, set the DATA ON SCREEN on the INITIAL SET-UP menu to OFF.
- When the DATA ON SCREEN is set to ON, the graphics will be copied along with the programme material.
- The tape recorded in NTSC cannot be copied to another VCR from your new VCR.

EDITING CONTROL

❹ When dubbing to a Mitsubishi VCR with an EDIT socket, the controls of your new VCR can be used to perform the editing. Proceed as follows:

	Your new VCR	Mitsubishi VCR with EDIT socket
1	Obtain still frame.	Engage record pause mode.
2	Press the PLAY button to begin playback. (playback starts after pre-roll.)	(Recording starts automatically.)
3	Press the PAUSE button where you want to stop recording.	(VCR automatically switches to record pause mode.)
4	Locate the point at which you wish to start the dubbing using speed search, and obtain still frame.	—
5	Press the PLAY button to begin playback.	(Recording starts automatically.)

- Repeat the steps 3 - 5 as many times as necessary.

■ PRE-ROLL

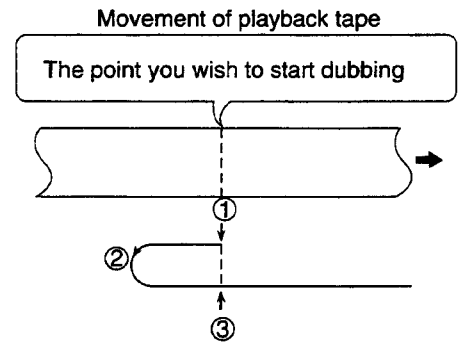
During still frame when the PLAY button is pressed, the VCR visually rewinds the tape for one second so that the recording VCR can begin recording at precisely the point desired. The VCR operate as follows:

The VCR(PLAYBACK)

① Reverse speed search starts when the PLAY button is pressed during still frame.
② It changes to normal playback in one seconds.

Other Mitsubishi VCR (RECORD)

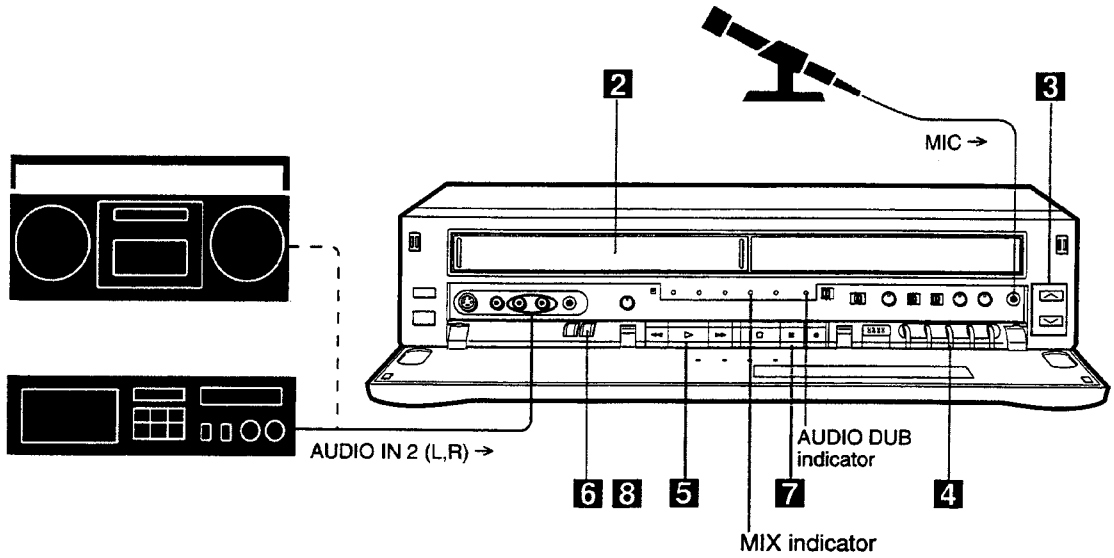
③ The VCR automatically starts recording at this point.



ENGLISH

AUDIO DUBBING

This VCR allows you to replace an existing normal sound track with a soundtrack of your choice. This new soundtrack is inputted from an external source i.e. another VCR or microphone. This new soundtrack is mono only.



1. Connect this VCR and additional equipment as shown by the diagram above.
2. Load a cassette with the erasure prevention tab intact.
3. Press the CHANNEL buttons to select an external source [L2].
4. Press the MIX button to ON. (The MIX indicator will illuminate.)
5. Press the PLAY button and locate where the audio dubbing is to begin by using the SHUTTLE ring and JOG dial to find the precise location.
6. When in still mode, press the AUDIO DUB button to engage the audio dub pause mode. (The AUDIO DUB indicator will illuminate.)
7. Simultaneously start the external sound source and press the PAUSE button.
8. Press the AUDIO DUB button to release audio dubbing function.

■ Playing back an audio dubbed tape.

You can listen to the audio dub sound track and the original soundtrack by using the MIX button on your VCR.

To hear the two sound tracks at the same time.
Press the MIX button to ON. The audio monitor automatically switches to STEREO. (The MIX indicator will illuminate and the L and R indicators will illuminate.)

To hear the new sound track only.
Press the MIX button to OFF. (The MIX indicator will turn off.)
Press the MONITOR button to NORMAL. (The L and R indicators will turn off.)

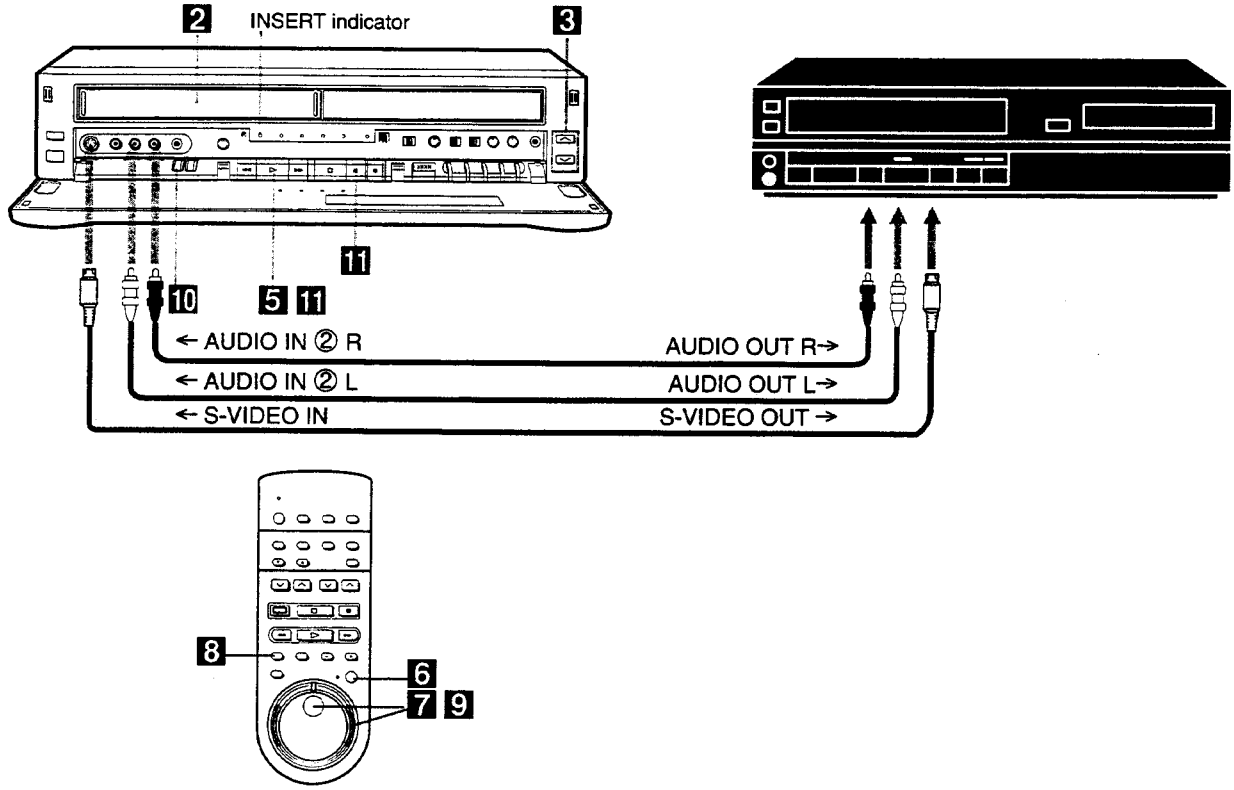
To hear the original sound track only.
Press the MIX button to OFF. (The MIX indicator will turn off.)
Press the MONITOR button to STEREO. (The L and R indicators will illuminate.)

NOTE:

- When engaged in the audio dub pause mode, the audio monitor is automatically switched to the normal sound track.
- MIX button must be set to OFF for normal operation, otherwise the sound may be somewhat muffled.
- When the MIX button is set to ON, the audio monitor cannot be switched to the other positions from STEREO.
- Audio dubbing is not possible using a cassette whose erasure prevention tab is broken off.
- When using a microphone, if a high-pitched sound is heard from the TV set, either turn down the TV volume or place the microphone away from the TV set.
- When both the microphone and audio input terminals are connected, audio dubbing is only done with the microphone signal.
- Always remove the microphone when not in use.
- The sections where audio dubbing has been done will have somewhat reduced quality.
- Audio dubbing erases any pre-existing recording on the normal sound track, but leaves the Hi-Fi track intact.
- The low impedance is suitable for audio dubbing. If you use high impedance microphone, the high frequency may be inferior.

INSERT EDITING

This feature allows the user to make a recording within a recording with minimum distortion eg. to replace commercial breaks and so maximising the use of the tape.



1 Connect the equipment to be used as in the diagram above.
2 Load a cassette with the erasure prevention tab intact.
3 Press the CHANNEL buttons to select an external source [L2].
4 Turn on the TV and set it to the Video Channel.
5 Press the PLAY button. (Continue playback for several seconds and check that the digital tracking indicator is illuminated.)
6 Press the JOG/SHUTTLE button.
(The JOG/SHUTTLE indicator will now illuminate and your VCR is now in still mode.)
7 Using the JOG dial and SHUTTLE ring locate the exact point where you want to finish recording your insert.
8 Press the COUNTER RESET button. The end of the insert has now been set to 0H00M00s .
9 Using the JOG dial and SHUTTLE ring locate the starting point.
10 Press the INSERT button to engage the insert standby mode, the insert indicator will be illuminated on the front panel.
11 Press the PLAY button on the source VCR and press the PAUSE button on your new VCR. The INSERT EDITING will now begin.
The VCR will automatically stop at the 0H00M00s which was set previously.

Other features

- There may be a section on the source tape that you do not wish to record. This can be bypassed by pressing the PAUSE button on your new VCR.
- At the beginning of insert recording the sound is momentarily played back in fast rewind mode. This is not due to any failure or defect.

NOTE:

- Only the VHS Hi-Fi audio track is recorded in the insert edit mode.
The normal audio sound track is not erased and will contain the audio from the original recording.
- Performing an insert edit in the same location more than once will degrade the picture quality.
- Some picture distortion or change in colour may occur with the insert editing depending on recording conditions.
- If the VCR is left in the insert stand-by mode for longer than 5 minutes, the VCR switches to stop mode to protect the tape.
- Use of the TAPE SPEED button is not necessary during insert editing recording. The VCR automatically inserts the recording in the same tape speed at which the tape has been recorded.
- The tape speed is not displayed during insert recording.
- Insert recording will not function on an unrecorded tape.

INSERT EDITING WITH AUDIO DUBBING

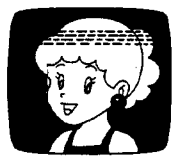
1 Connect the equipment for INSERT EDITING and AUDIO DUBBING.
2 Follow steps 2 – 10 of the INSERT EDITING operating instruction.
3 Press the AUDIO DUB button to engage the audio/video dubbing stand-by mode.
(The INSERT indicator and the AUDIO DUB indicator will illuminate at the same time.)
4 Operate the video and audio source and press the PAUSE button to begin the audio/video dubbing.
5 To stop only the audio dubbing, press the AUDIO DUB button.
6 To stop audio/video dubbing, press the STOP button.

- If you wish to begin audio dubbing during insert editing, press the AUDIO DUB button during insert editing.

ENGLISH

TROUBLESHOOTING

What may initially appear to be trouble is not always a problem. Make sure first...

SYMPTOM	REMEDY
No power supplied to VCR.	• Has the Mains Lead been disconnected form the AC outlet?
The VCR POWER is ON but unit does not operate.	• Safety devices are operating. Press the TIMER RESET button using a pencil or ball pen, then press the VCR POWER button to ON. • Is the lock indicator (δ) ON? if so, press and hold the DATA ON SCREEN button for about 8 seconds until the lock indicator (δ) disappears.
Poor TV picture. Mesh-like stripes appear. No colour.	• Adjust as follows. Select the VCR channels one by one and observe the picture displayed on each station. → Poor picture on each station. → Adjust the TV fine tuning control. → Poor picture on some stations only. → Adjust the VCR tuning control in line with the "Channel presetting" procedure on pages 10 and 11.
No operation when REC button is pressed.	• Has the cassette's erasure prevention tab been broken off? (See page 15.) • Has the tape finished?
No picture during recording (playback).	• Is the TV set to the Video Channel?
Tape does not run when PLAY button is pressed.	• Has the tape finished?
No rewind or fast forward.	• Is the tape in the recording mode? • No fast forward: Is the tape finished? • No rewind: Is the tape already at the beginning?
Noise on part of playback picture. 	• Is the DTR indicator turned off? If so, press the CHANNEL ∧ and ∨ buttons on the VCR at the same time for automatic digital tracking adjustment. If noise appears when the DTR indicator is illuminated, adjust the tracking manually pressing the CHANNEL buttons on the VCR during playback.
No recording of TV programmes.	• Is the VCR channel selector set to the right channel?
No programmed recording.	• Have the clock time and recording time been accurately set? • Has the channel been properly set?
No Hi-Fi sound is received or Hi-Fi sound is interrupted.	• Complaints of this type arise when the tape is too old or damaged. • Complaints of this type arise when the rotary head (sound head) is contaminated.
Clear TV picture but blurred pictures with recorder playback.	• This symptom will occur when the recorder has been used for a long period of time. During this time, a deposit of oxide has built up on the video heads which must now be cleaned. A small amount of expertise is required to clean the heads thus you should contact your dealer.
No operation when the buttons on the remote control unit are pressed.	• Have the batteries run low? • Is the lock indicator (δ) ON? If so, press and hold the DATA ON SCREEN button for about 8 seconds until the lock indicator (δ) disappears.

If the above remedies do not cure your problem, disconnect the Mains Lead and contact your dealer.

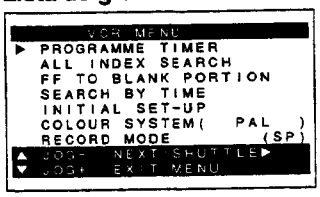
ENGLISH

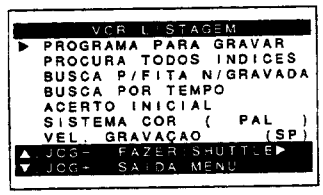
INFORMAÇÕES EXTRA

EXEMPLO DE MOSTRUÁRIO NO ECRAN EM PORTUGUÊS

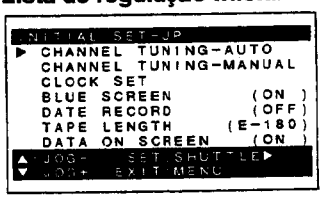
Inglês | Português

Lista do gravador de vídeo

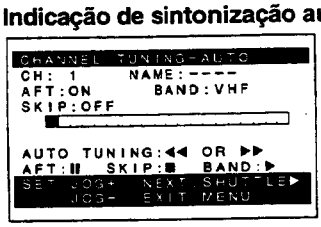


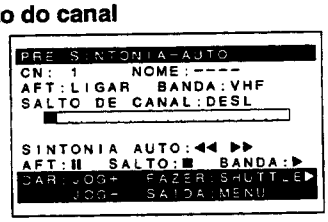


Lista de regulação inicial

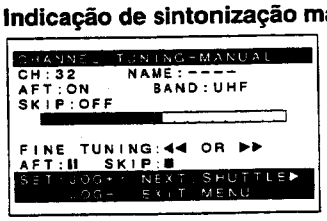


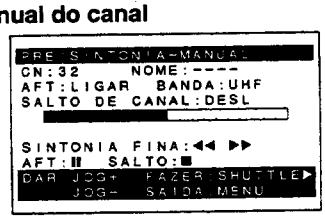
Indicação de sintonização auto do canal



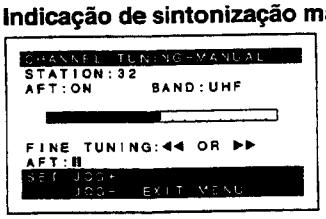


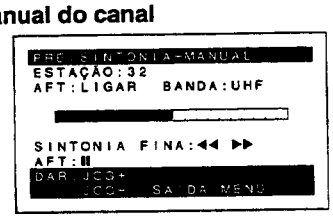
Indicação de sintonização manual do canal



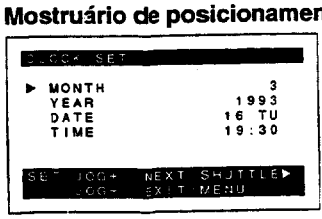


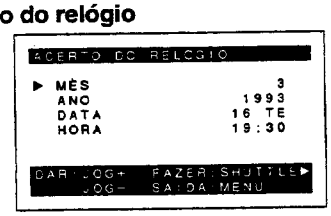
Indicação de sintonização manual do canal



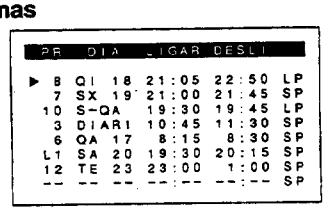


Mostruário de posicionamento do relógio

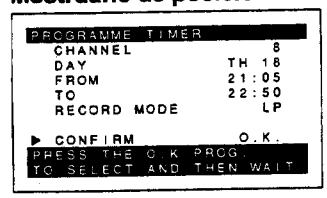


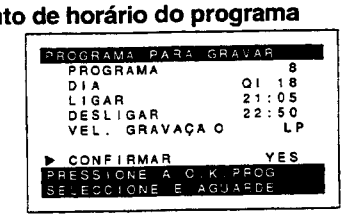


Mostruário da lista de programas

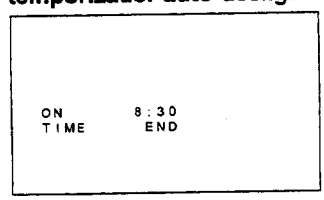


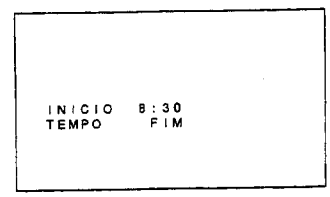
Mostruário de posicionamento de horário do programa





Mostrador de gravação por toque (OTR)/Mostrador de temporizador auto-desligável





Mostrador de modo

Inglês	Português
CH 80m	CN 80m
EXT L1	EXTERIOR L1
EXT L2	EXTERIOR L2
CASSETTE IN	CASST.COLOC.
REC SP	GRAVAR SP
REC LP	GRAVAR LP
INDEX WRITE	PÔR INDICE
INDEX ERASE	APAGA INDICE
PAUSE SP	PAUSA SP
PAUSE LP	PAUSA LP
PLAY	LEITURA
FF	AVANÇAR
REW	REBOBINAR
STOP	PARAR
EJECT	EJECTAR
CNTR 0 STOP	'0' E PARAR
SEARCH +19	BUSCA +19
REPEAT PLAY	REPETE LEIT.
REPEAT REW	REPETE REB.
F SEARCH ALL	BUSCA RAP FR
R SEARCH ALL	BUSCA RAP RB
BLANK SEARCH	BUSCA S/GRAV
→OFF	→DESLIGAR
AUDIO DUB	DOBRAR SOM
INSERT	INSERIR
INSERT PAUSE	INSER. PAUSE
AV DUB	AV DUB
AV DUB PAUSE	AV DUB PAUSE

Dia

Inglês	Português
SU	DO
MO	SE
TU	TE
WE	QA
TH	QI
FR	SX
SA	SA
TODAY	HOJE
E-WE	S-QA
E-DAY	DIARI

PORTUGUÊS